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THE AMERICAN

ELEVATOR AND

GRAIN TRADE

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Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XLI

431 South Dearborn Street, Chicago, Ill., April 15, 1923

NO. 10

WE ARE **PROGRESSIVE** ENOUGH
TO BE **AGGRESSIVE** FOR YOU

McKENNA & DICKEY
Grain

60 BOARD OF TRADE
CHICAGO

For your
Business Sake
Communicate

To Illinois Grain Dealers

The latch string will be out at the offices of

Rogers Grain Company

Webster Building, 327 So. La Salle St.

during the Convention of the Illinois Grain Dealers
Association, at Chicago, Ill., May 15 and 16, 1923.

FEED SYSTEM ENGINEERING

for Feed Plant Construction and Equipment
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"THE MARKET'S UP!"

How Soon Will You Know?

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It means money to you. Market
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**CATCH THEM—THEY'RE
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Baseball, Football Scores, Time
Signals, Lectures, the Opera, Won-
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A MILLION THINGS
Out of the air with this wonder
worker

EHRLER-RADIO

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Radio Sets and Accessories are Useful Gifts
"When You Think of Radio Think of
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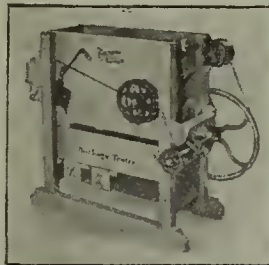
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Mail Samples for Bids

TIMOTHY, CLOVERS, ALSIKE, ALFALFA, MILLETS, RED-
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The Emerson Dockage Tester



Positively determines all foreign
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for itself on one car of grain—the
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sizes also.

Made by

**EMERSON MANUFACTURING
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COURTEEN SEED CO.

Specialize in all

GRASS AND FIELD SEEDS

SHIPPERS. Send Samples for Bid.

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MILWAUKEE, WISCONSIN

HAMILTON'S *Levator* BELTING

The Kind That Grandpa's
Superintendent Bought

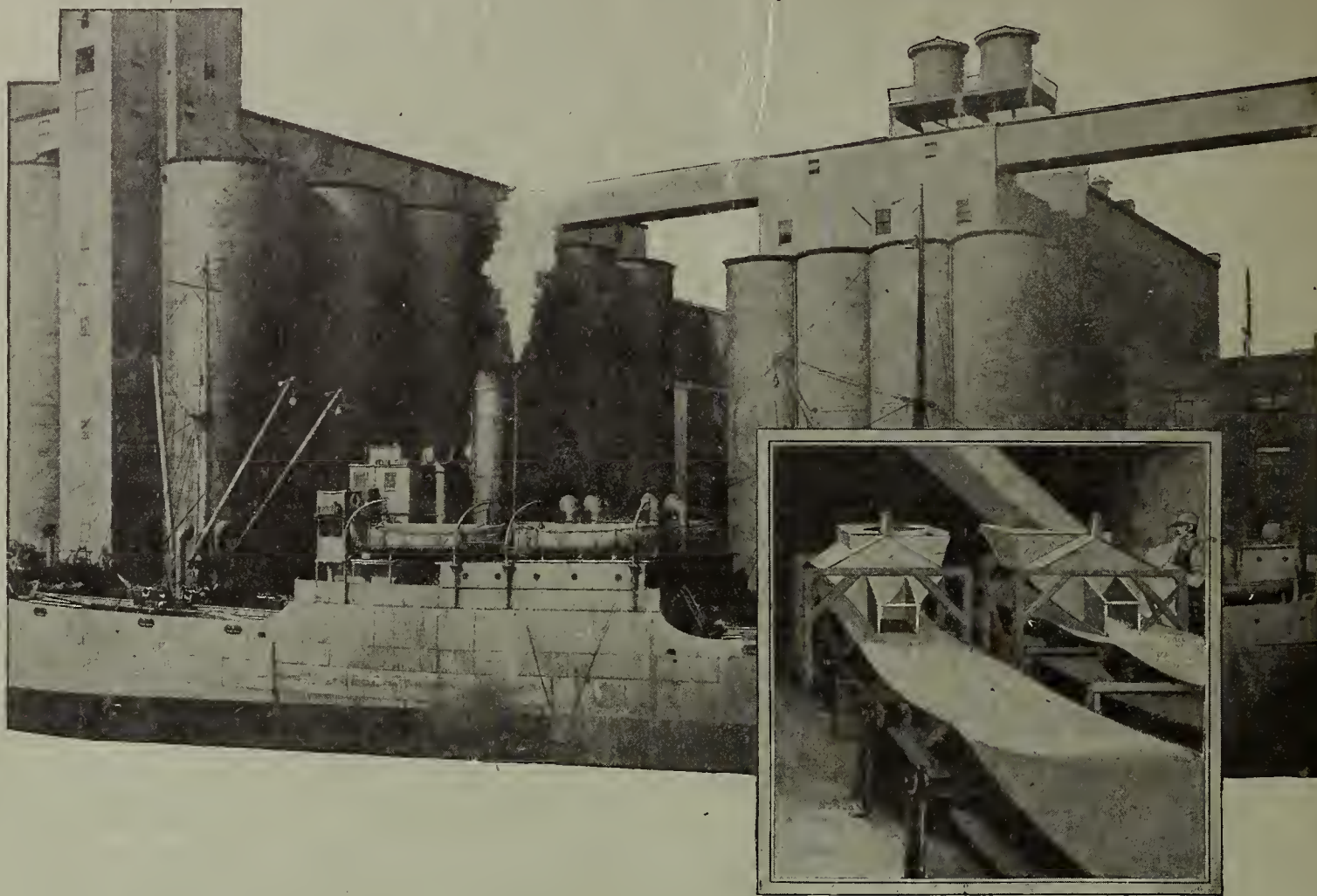
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Write for samples and prices

Hamilton Rubber Manufacturing Co.

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When the Boat waits on the Belt

A belt out of commission! That's when demurrage charges begin to eat the heart out of profit. A belt that renders unbroken service soon pays for itself in a grain elevator.

Goodrich engineers developed "Carigrain" and "Legrain" Belts to give the grain elevator depend-

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Immune from the changing conditions of dampness and dryness they are age-resisting, and fulfil season after season of unbroken service.

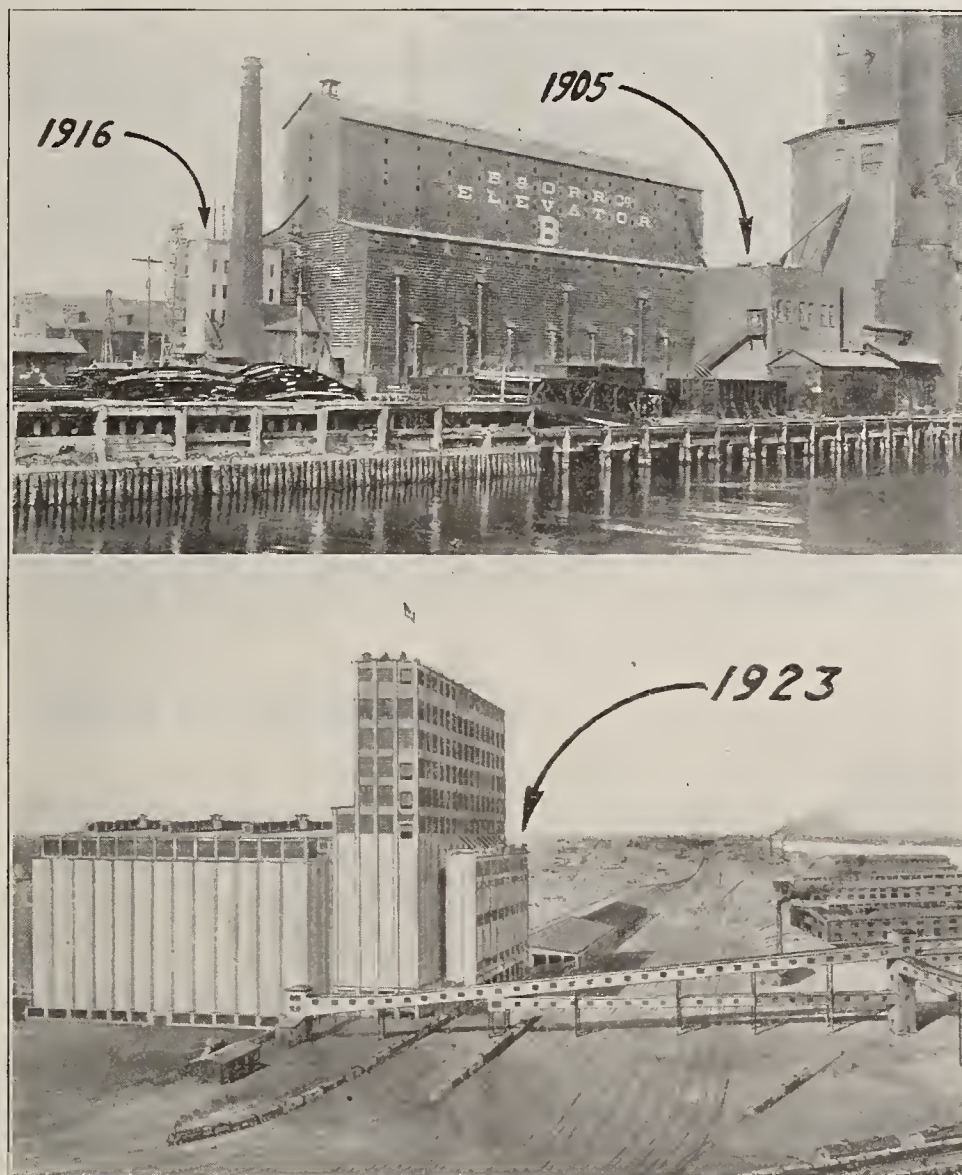
This reliability is the best insurance against demurrage.

THE B. F. GOODRICH RUBBER COMPANY, Akron, Ohio

Goodrich

"Legrain" and "Carigrain" BELTS

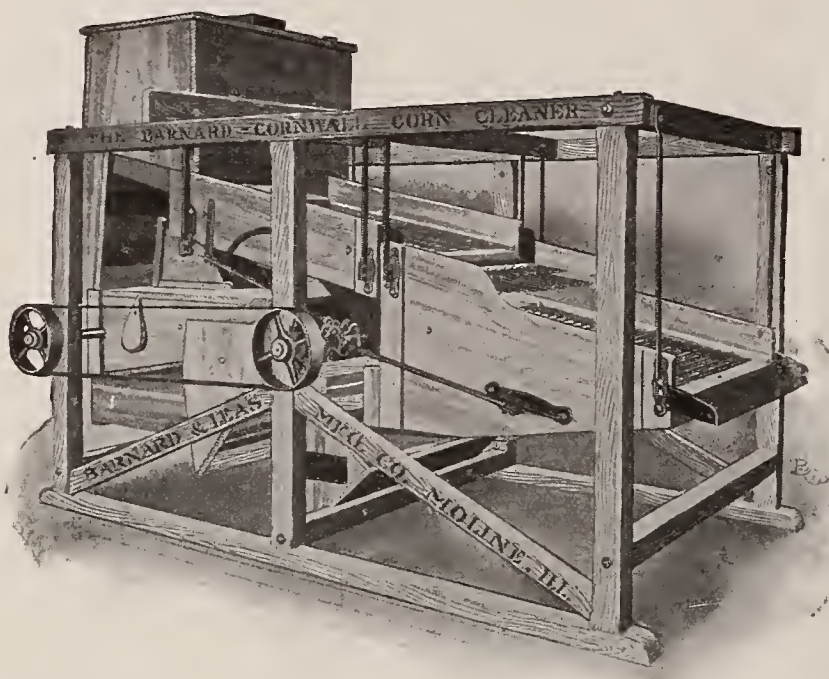
A Song Without Words



John S. Metcalf Company, Designing Engineers
L. A. Stinson, Consulting Engineer

Hess Grain Driers at
B. & O. R. R. Terminals,
Locust Point, Baltimore, Md.

Hess Warming & Ventilating Co.
1210 Tacoma Building, Chicago



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Cleans Thoroughly Does Not Clog

The Barnard-Cornwall Corn Cleaner is the only machine on the market that removes, without clogging all cobs, small cob ends, pieces of cob, chaff, silks, husks, shrunken grains and light, broken pieces of corn, leaving the shelled corn whole and perfectly clean.

This is accomplished by the use of our patented finger sieve, which is of special construction and which serves to shake up the mass of shucks, cobs, etc., allowing the corn to fall through onto the tail sieve where it is given a chance to make a better separation. The screenings drawn out by the last air separation are caught in the screen box and can be ground into feed.

This machine can also be fitted with an extra set of sieves for cleaning wheat, oats, etc., which can be placed on the shaker without removing the corn sieves, therefore it is a good receiving separator.

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We have been building corn shellers and cleaners for sixty-three years and make a style and size for every corn mill requirement.

WRITE FOR SPECIAL BULLETIN 16-E FOR PRICES AND FULL DETAILS



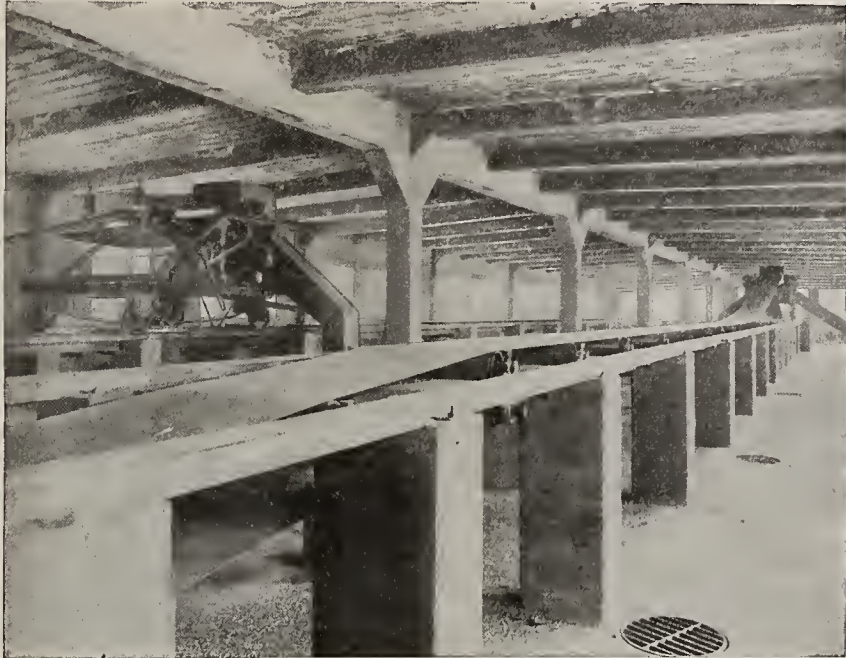
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MILL BUILDERS AND
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ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.

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The Better Kind of Grain Handling Machinery

Installed in your elevator will help you to operate at full capacity. Frequent shut downs and waiting for repairs dissipate your profit. Weller Made Machinery is made by men who know its application and the conditions under which it is to operate—it proves its merit because quality is built into it.

You owe it to yourself when building or making repairs to get our prices.



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We make a complete line of:

Apron Conveyors	Elevator Spouts
Belt Conveyors	Loading Spouts
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Power Transmitting Machinery
Coal and Ash Handling Machinery



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Tell us the kind of equipment you are interested in. Catalogue showing illustrations also giving data that will help in making your selection will be sent. Experienced engineers are also at your service.



SAVES \$3408 A YEAR HANDLING COAL WITH WELLER MADE EQUIPMENT

M. J. Cahill & Co., Boston, Mass., says:—

Our Weller Bucket Elevator has proved the finest system of handling our coal. With this equipment we unload a 50-ton car in less than two hours; in the past month and a half it has handled 50 cars of coal and on the average it will handle about 12,000 tons or 240 cars a year.

Coal arrives at our yard in hopper-bottom cars, from which it is dropped into a hopper beneath the track. From this hopper it is fed by a reciprocating feeder into a boot—and the Weller Buckets turn into this boot, take the coal out and elevate it about 35 feet to a trough from which it goes to various bins through 5 chutes. This system causes no breakage of coal, and we handle nut, egg, stove, soft, and pea coal.

Formerly, we used a portable belt conveyor. This method necessitated loading our wagons by hand and required trimming at the bin, both running into considerable expense. In fact, our figures show a cost of \$19.20 a car or \$0.3840 per ton for handling with the belt conveyor, while with our Weller System our cost is only \$5.00 per car or \$0.10 per ton. A saving each year as a result of the Weller installation of \$3,408. No trimming is necessary with this equipment.

Our Weller Bucket Elevator has been satisfactory in every way. It has given no trouble—and the dealer service could not be improved. It is economical to operate and the machine is constructed of heavy material that wears. Everything is sturdy and well built.

IF YOU HAVE A COAL OR MATERIAL HANDLING PROBLEM, WRITE US

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PITTSBURGH

CLEVELAND

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Indianapolis is known as the largest inland railroad city in the country and is the natural destination for shipments of grain from Indiana, Illinois, Ohio, Michigan, Wisconsin and states adjoining.

Its geographical location together with its railroads radiating to all sections of the country, makes it a logical outlet and distributing point to the East, South and Southeast.

These splendid railroad facilities assure quick handling of shipments with prompt returns on same.

Indianapolis also takes a natural



The Indianapolis Board of Trade

pride in having the largest corn mills in the country which, together with its flour mills and vast array of manufacturing industries, creates an exceedingly large local consumption of wheat, corn, oats, rye and hay annually.

This local and foreign demand makes for top prices on all shipments.

The market's adequate weighing facilities, its efficient inspection department, and increased elevator storage and drying equipment makes Indianapolis more and more important each season as a market for shippers and buyers of grain, hay and feeds.

Route your grain and hay to any of the following firms, all devoted to your interests and all members of the

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BERT A. BOYD GRAIN CO., Grain Commission

FRANK A. WITT, Grain Commission and Brokerage

BINGHAM GRAIN COMPANY, Grain Merchants

CLEVELAND GRAIN & MILLING CO., Grain Commission

H. E. KINNEY GRAIN CO., Receivers and Shippers

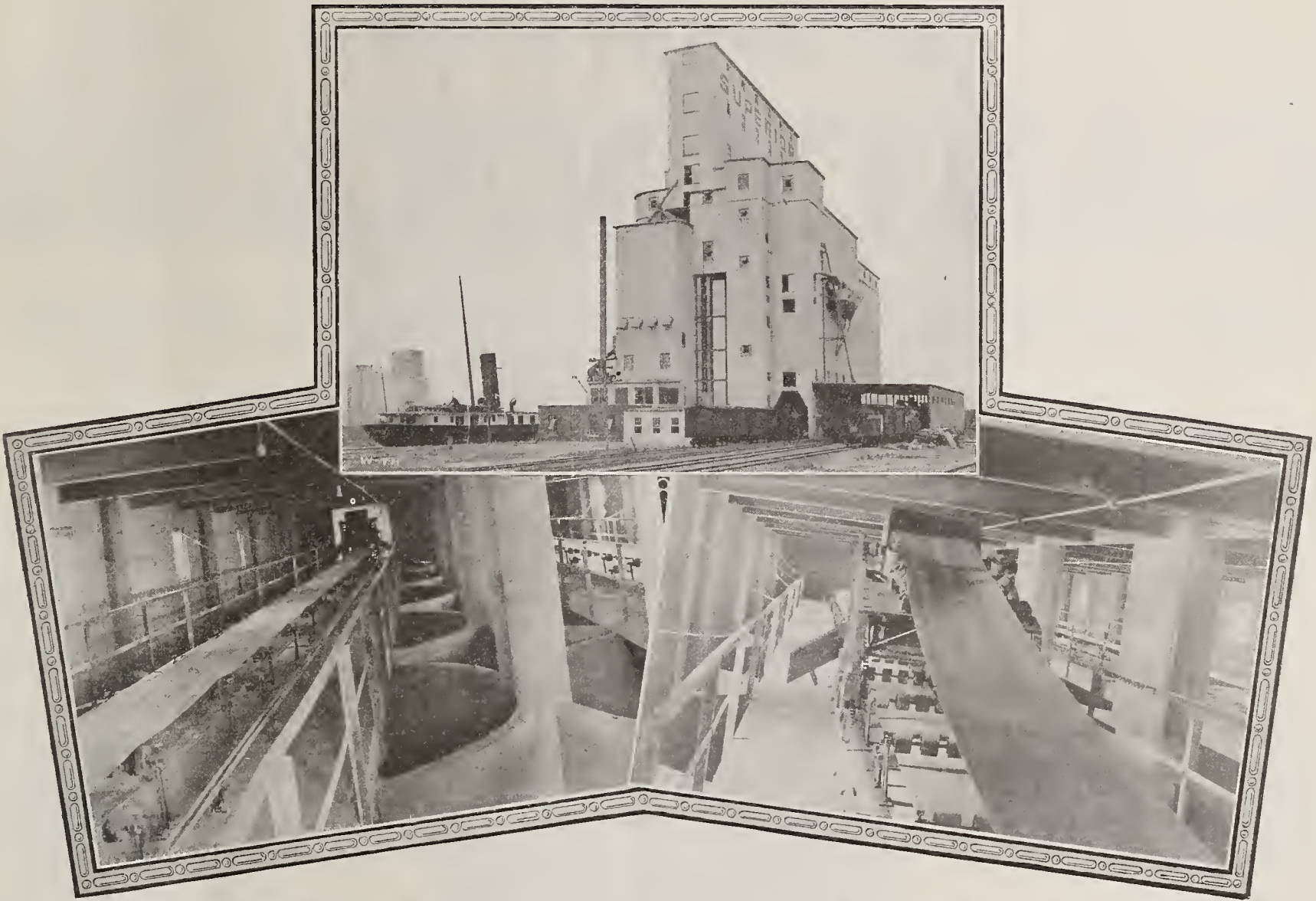
URMSTON GRAIN & SEED CO., Grain and Seeds

THE EARLY & DANIEL CO., Grain Commission Merchants and Buyers

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LEW HILL GRAIN CO., Strictly Commission

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Standard Equipment in Modern Grain Handling Plants

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The experience of numerous installations in grain elevators and mills is concentrated in the Webster Organization. Let them select suitable equipment to meet your particular requirements.

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Factories-Tiffin, O. and Chicago - Sales Offices in Principal Cities

CINCINNATI

THE GATEWAY TO THE SOUTH AND EAST

Has the "square deal" plugging system for hay.

Has reconsignment and transit privileges and other favorable points which insures most successful handling of grain or hay shipments.



Home of the Cincinnati Grain and Hay Exchange

Is the terminal point for 200,000 miles of railways and therefore a convenient shipping point for the country dealer, and local buyers are enabled to distribute all products quickly and to best advantage. Has weighing and inspection service second to none and up-to-date grain and hay merchants constantly safeguarding their patrons' interests.

Those are just a few of the reasons why you should ship your Grain and Hay to Cincinnati. Ship to any of the following responsible grain and hay firms, all members of the

Cincinnati Grain & Hay Exchange

CLEVELAND GRAIN & MILLING CO.,
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MUTUAL COMMISSION COMPANY,
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THE McQUILLAN CO., Grain, Hay, Feeds



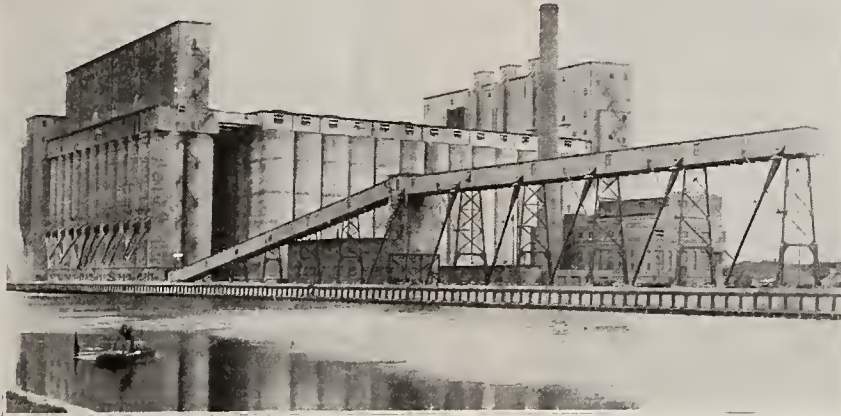
Manchester Ship Canal Elevator
Manchester, England
Capacity 1,500,000 Bushels
Completed 1914



Buenos Aires Elevator Co.
Buenos Aires, Argentina
Capacity 750,000 Bushels
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John S. Metcalf Co. Grain Elevator Engineers



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South Chicago, Illinois
Capacity 10,000,000 Bushels
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Montreal, Canada, - 54 St. Francois Xavier Street
Melbourne, Australia, - - 395 Collins Street
Buenos Aires, Argentina, S. A., 639 Calle Maipu



Harbour Commissioners Elevator No. 2
Montreal, Quebec
Capacity 2,600,000 Bushels
Completed 1912



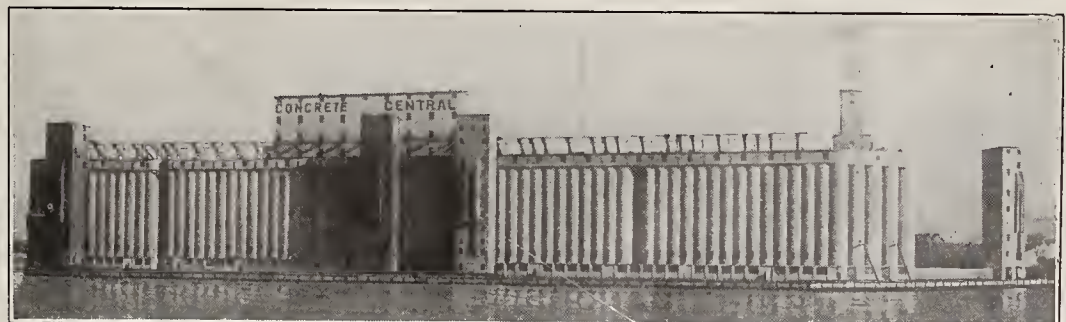
Sydney Terminal Elevator
Sydney, Australia
Capacity 6,400,000 Bushels
Completed 1921



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400,000-BUSHEL ELEVATOR

BUILT FOR

POSTUM CEREAL CO., BATTLE CREEK, MICH.
"THERE'S A REASON"

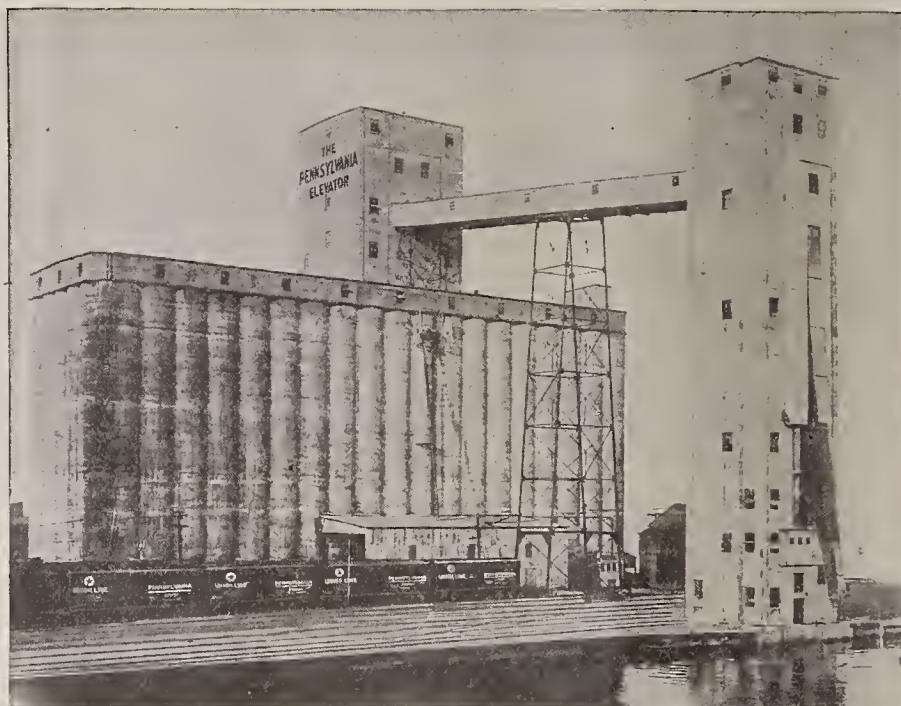
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Grain Elevators, Flour Mills, Industrial Plants, and other
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1,250,000-bushel Concrete Workinghouse and 25,000-bushel Marine
Tower. Reinforced Concrete. Latest improvements. Write us for
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Six Buildings Designed by us in 1920.

The Larowe Milling Co.'s Improvements, Toledo, Ohio.

We invite your inquiries.

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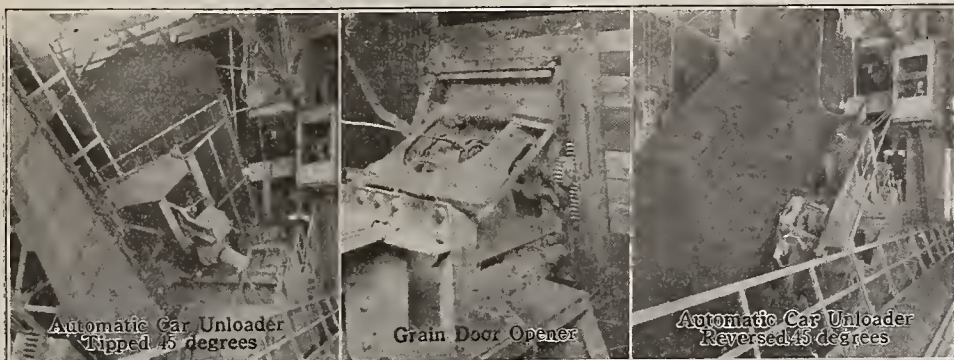
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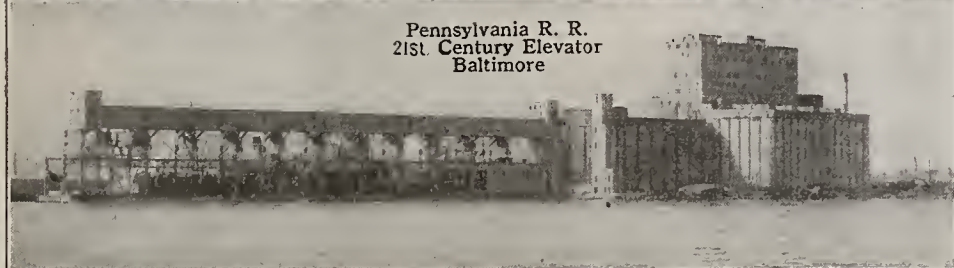


SPECIALIZING in the construction of fire-proof grain elevators of advanced
design. We are prepared to build anywhere. The following are now building:

STATE OF NEW YORK—BROOKLYN, 2,000,000 BU. ELEVATOR AND SHIPPING GALLERIES. (ILLUSTRATION.)
STATE OF NORTH DAKOTA—GRAND FORKS, 2,000,000 BU. ELEVATOR AND 3,000 BBL. MILL.
ARCHER DANIELS LINSEED CO., BUFFALO, 3/4 MILLION BU. ELEVATOR AND A REAL MARINE TOWER.
PILLSBURY FLOUR MILLS CO., ATCHISON, KAN., 3/4 MILLION BU.—FINEST MILLING ELEVATOR IN AMERICA.
N. M. PATERSON & CO., LTD., FORT WILLIAM, ONT., 3/4 MILLION BU. STORAGE.



Pennsylvania R. R.
21st Century Elevator
Baltimore



JAMES STEWART & COMPANY, Inc.

1210 Fisher Bldg. Chicago, Ill. **Designers and Builders Grain Elevators** W. R. SINKS Manager
In all parts of the world

Every day in every way we are designing and building better and better Grain Elevators. We have built for many of your friends—Eventually we will build for you. Why not now?



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TOWNSEND B. SMITH

**Designer and Builder
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Grain Elevators

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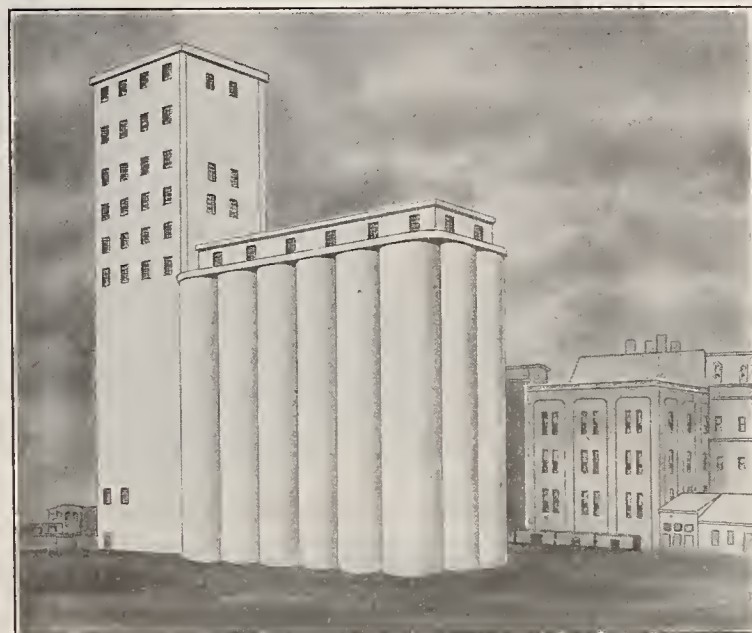
R. C. Stone Engineering Co.

320 Merchants Exchange Bldg., St. Louis, Mo.

DESIGNERS & BUILDERS

of

Grain Elevators, Flouring Mills, Feed Mills, Warehouses,
Cold Storage Plants, and other similar structures



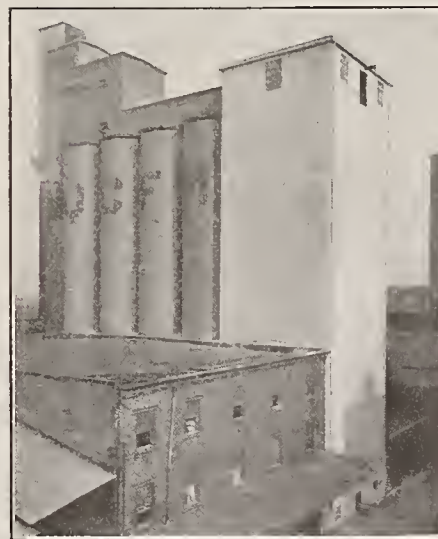
500,000 bu. capacity built for Kehlor Flour Mills Co., St. Louis, Mo.

We are Experts. We are at your service. We make a specialty of re-inforced concrete construction.

Have recently designed and patented some valuable improvements in grain elevators, which will interest you.

Correspondence solicited.

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Elevator Erected for
QUAKER CITY FLOUR MILLS
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OUR plans and specifications incorporate the latest and most approved materials and methods for thoroughly satisfactory fire-proof storage elevators. The best endorsements of our work are the completed grain elevators throughout the country—each a

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We will be glad to have you get in touch with us and to supply estimates and sketch-plans, without charge, so that you will know exactly how we can serve you.

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STORAGE BINS and TANKS

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STORAGE FOR SECURITY CEMENT & LIME CO.,
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CONSULTING
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BUILDINGS AND COMPLETE MACHINERY
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THE POLK SYSTEM

All-steel machines for all kinds of
CIRCULAR CONCRETE CONSTRUCTION

We contract grain storages, water
towers and coal pockets.

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521 Occidental Bldg.,
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Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an
up-to-date house. Write today.

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We would like to ship
you a dozen of these
on trial for 60 days.
No charge unless the
brush proves satisfac-
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—write today. Guar-
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brooms each. Used
by leading terminal elevators.

\$16.00 per doz. F. O. B. Minneapolis

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(Patented)

For Grain Elevator and Silo
Construction

Manufactured and sold by

NELSON MACHINE CO.

WAUKEGAN, ILL.

ARE YOU WORRIED

about the condition of that grain in your bins?

Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped

Write for Description

WESTERN FIRE APPLIANCE WORKS

542 South Dearborn Street

Chicago

Transit Leaks

are unknown to the grain ship-
pers who use

KENNEDY Car Liners

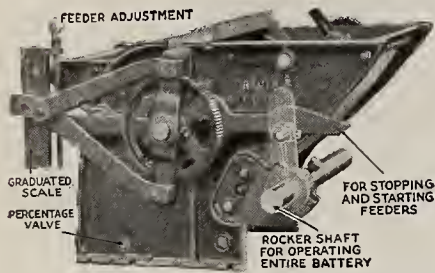
Enormous Increased Sales prove
the Efficiency, Merit and Service-
ability of these liners.

The Kennedy Car Liner

is the only device offered the
grain shipper that makes a car
Leak-Proof. Cheap — Modern —
Profitable. Write now for par-
ticulars.

THE KENNEDY CAR LINER & BAG CO.
Shelbyville, Indiana, U. S. A.

ACCURATE BLENDING OF WHEAT AND FLOUR



**Draver
Wing Type
Feeder**
Individual
or
Battery Drive

Present-day requirements have brought about the necessity for accurately blending both wheat and flour to meet the exacting demand of the buyer who specifies percentage content.

This also applies to the miller who desires to maintain a standard of quality under his different brands, so that his product will give the same uniform results, yesterday, today and tomorrow.

Draver Wing Type Feeders accurately feed a measured stream of wheat, flour, meal, ground or whole grains, because its movement is positive and its feeding-quantity definite, affected in no way by the supply pressure behind it. There are no loose joints and no leaking, with full sized discharge opening and automatic agitators; there is no bridging and no choking. They are readily adjusted to any pre-determined proportion and require no further attention, soon paying for themselves in saving waste and wages of men. There is no experimenting with Draver Wing Type Feeder, the Original, the Pioneer Feeder of this type.

They may be had with or without percentage valves and operated separately or in batteries with the Draver Master Drive.

Send for Catalog No. 41 F.

B.F. GUMP & Co.

453-457 So. Clinton St.

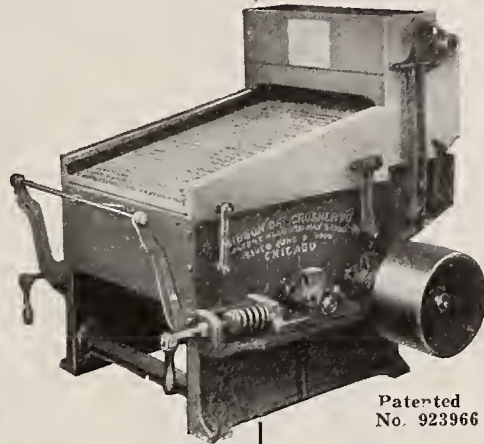
Chicago, Illinois

Also Manufacturers of Bar-Nun Grinders
and "LePage" Patent Corrugation.

SHARP CRACKED CORN
and
CLEAN CRUSHED OATS

are most economically
made on

GIBSON MILLS



Patented
No. 923966

Gibson Oat Crushers
are built in eight sizes
—500 to 5,000 lbs. per
hour. Gibson Corn
Crackers in four sizes
—5,000 to 12,000 lbs.
per hour. **Shipped on
trial.**

8,000 lbs. of Cracked Corn—less
than 2% meal—using only 5 H. P.
—the No. 18 GIBSON CORN
CRACKER will do it.

Gibson Oat Crusher Co.

Patentees & Mfrs.

1328 McCormick Bldg.

CHICAGO

TOMORROW MAY BE TOO LATE



make it safe

TODAY

Mutual Fire Prevention Bureau

230 E. Ohio St.

Chicago, Illinois

Built to Give Long Service—

The Monarch Ball Bearing Attrition Mill grinds grain better and costs less to run because it is equipped with ball bearings throughout—and it needs no tramming device, as it never gets out of tram.

Because of its simpler construction the Monarch has fewer parts to wear out and use up power. The life of the Monarch is considerably lengthened, even down to the grinding plates, because fewer parts mean stronger and better parts, which insure you better grinding at less cost for a longer period of time.

"Five years of
service without
a cent of ex-
pense"

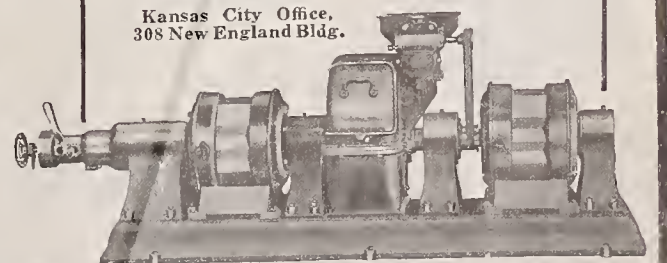
"Our Monarch Attrition Mill has given us uninterrupted service for over five years, without a cent of expense," writes J. M. Orebaugh, of the Oppen-Orebaugh Milling Co., Norwalk, Ohio. "There seems to be no 'wear out' to it."

"Judge them
by their
record"

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& Company**

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MUNCY, PA.

Chicago Office,
9 South Clinton St.
Kansas City Office,
308 New England Bldg.



The Corn Exchange National Bank

OF CHICAGO

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Surplus and Profits - 10,000,000.00

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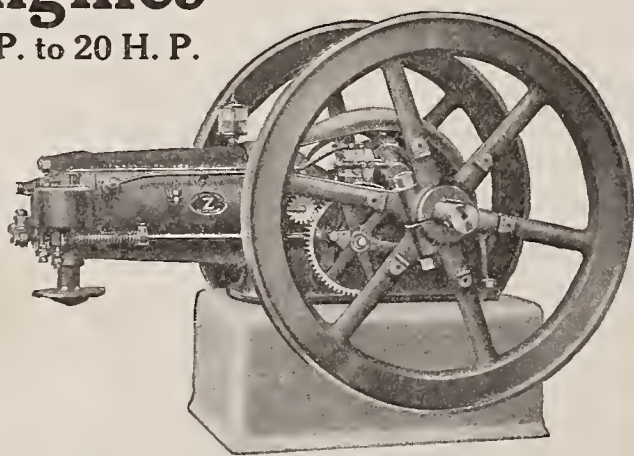
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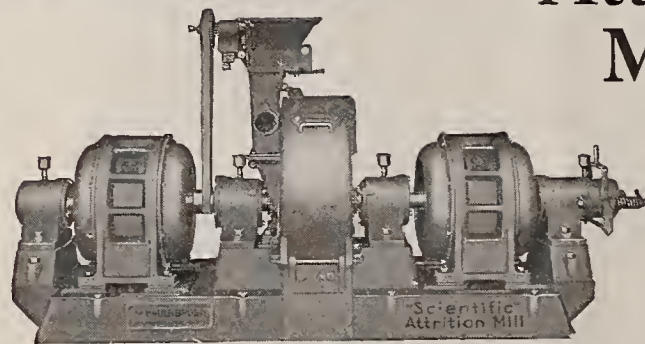
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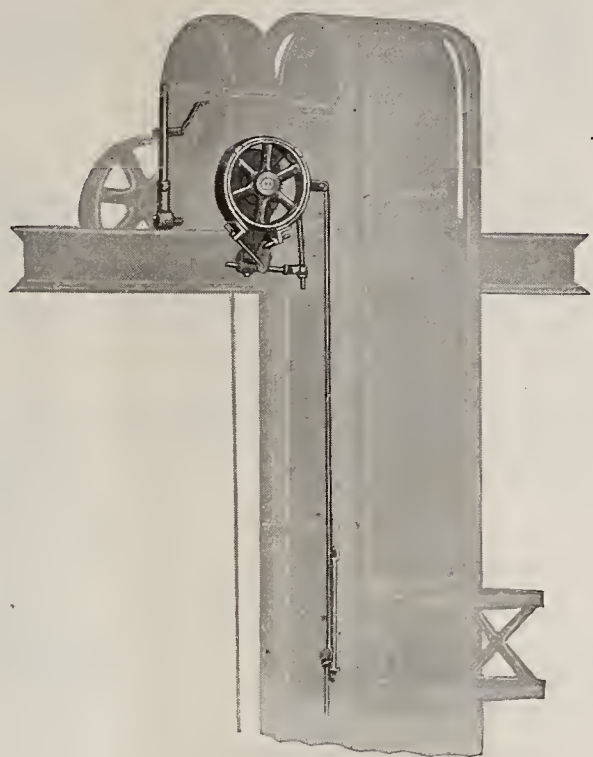
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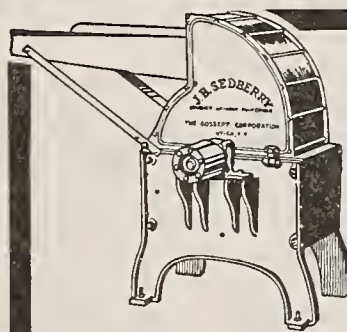
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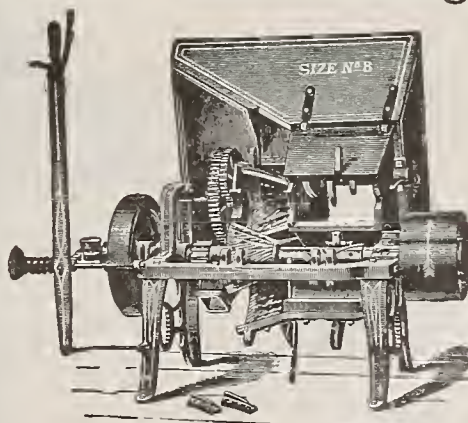
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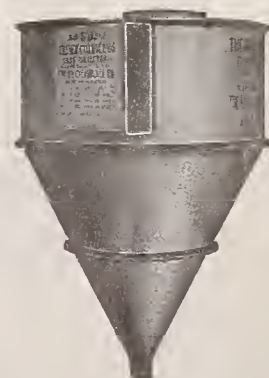
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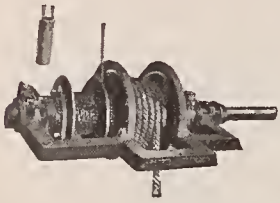
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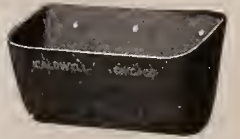
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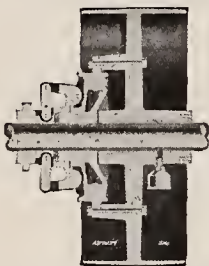
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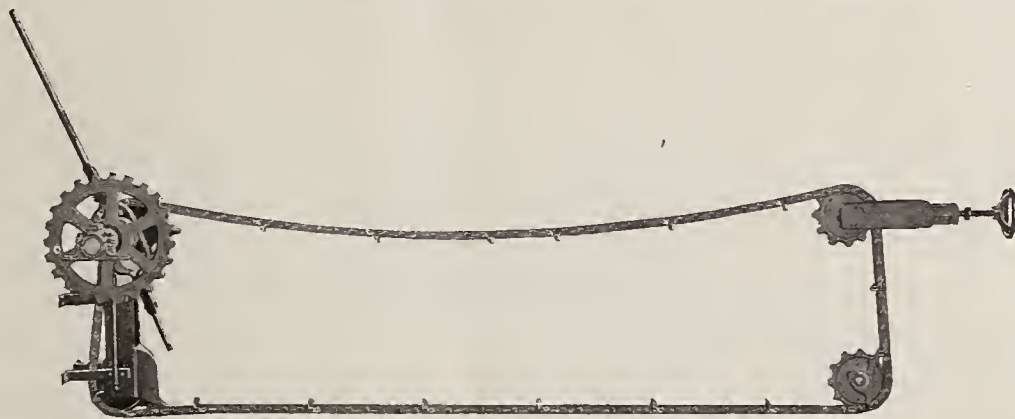
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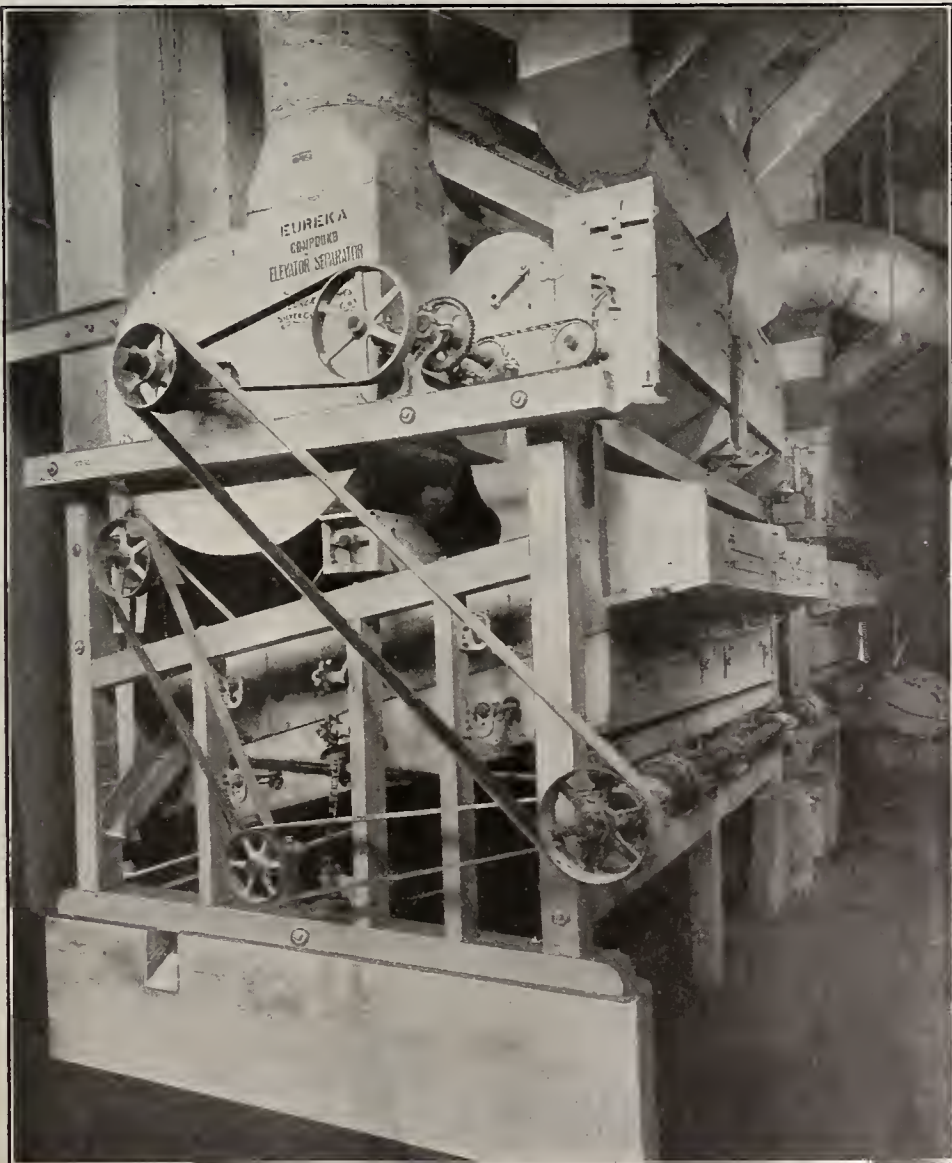
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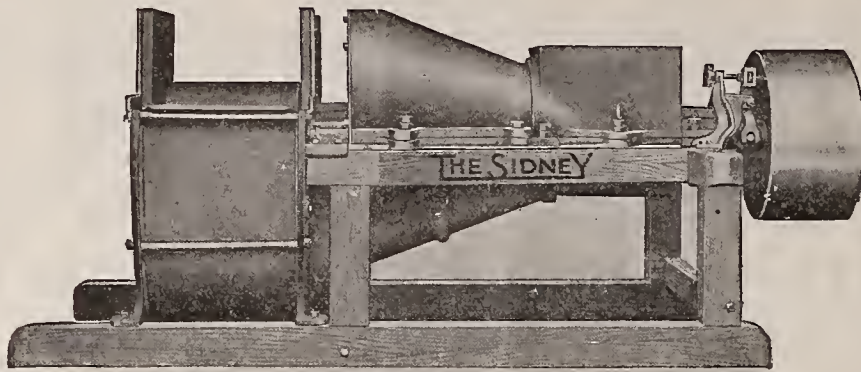
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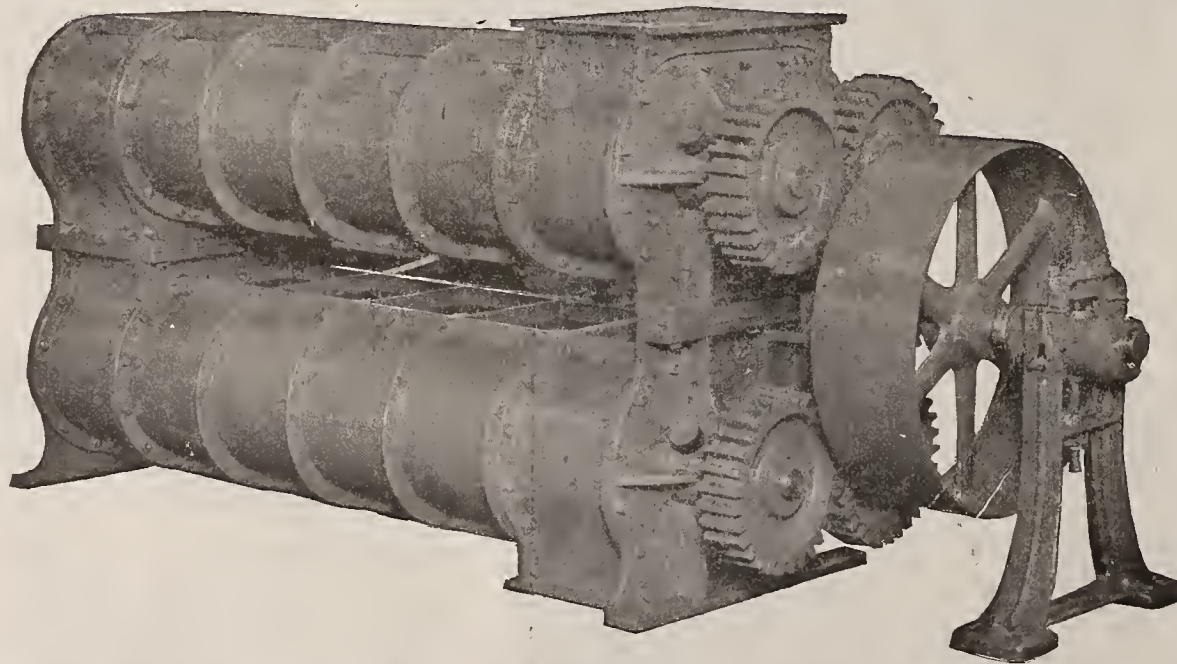
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Seaboard Grain Movement Breaks All Records

Erie & Western Elevator at Erie, Pa., Equipped with Morse Chain Drives, Aids Pennsylvania Railroad to Handle Unprecedented Volume of Grain

THE Pennsylvania Railroad last year broke all its previous records in the amount of grain handled through the Girard Point Elevator of Philadelphia and the Canton Elevator at Baltimore. A total of 77,850,209 bushels passed through these elevators, of which about 39,000,000 bushels moved ex-lake from Buffalo; a large amount came all-rail from the West; and all the rest was handled from Lake Erie through the elevator of the Erie & Western Transportation Company at Erie, Pa. The Erie & Western is a subsidiary of the Pennsylvania Railroad, which has shown extraordinary acumen in the construction, equipment and management of its various grain handling plants.

While the Erie & Western Elevator has a capacity

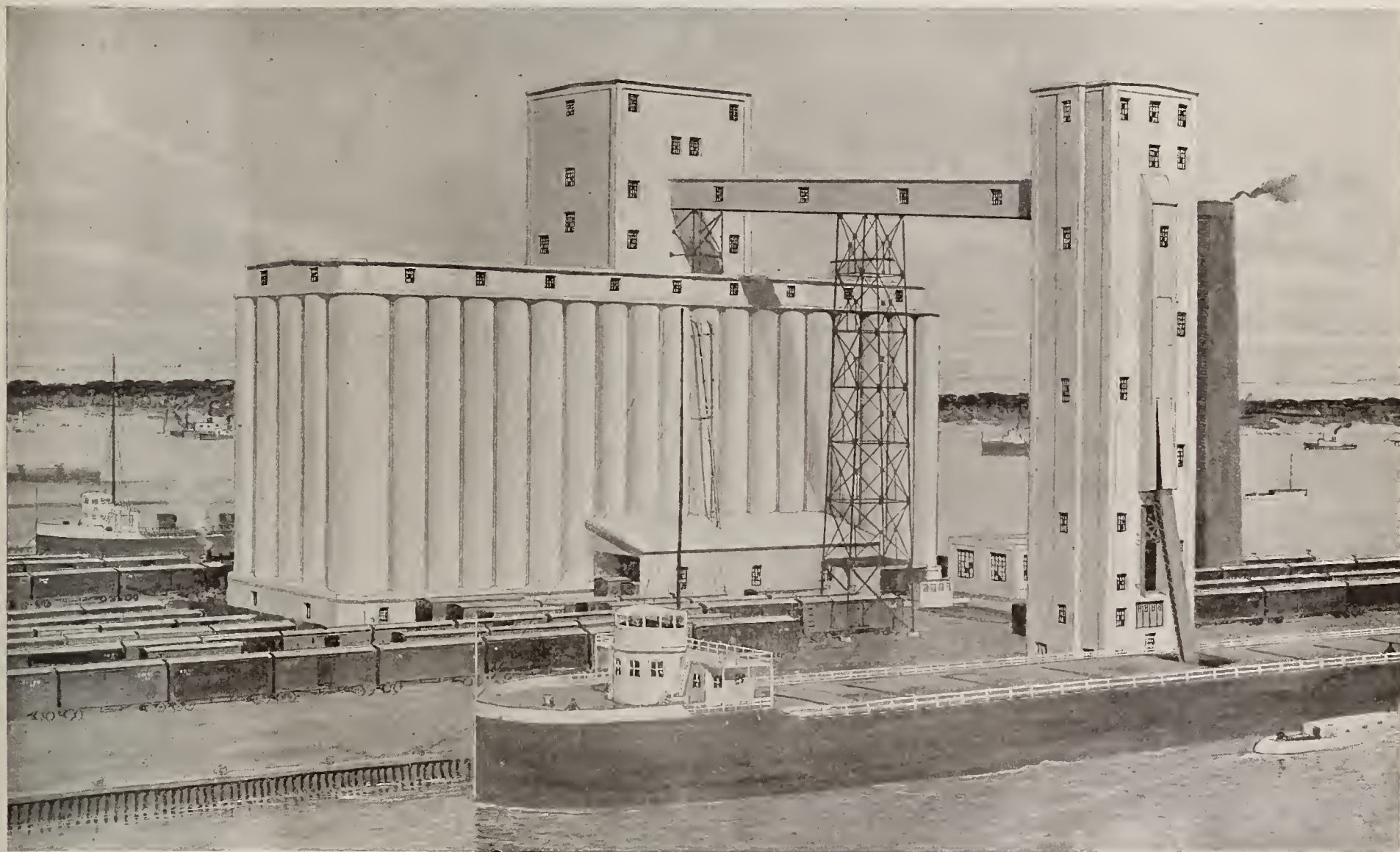
upon to handle the grain from boats. But before the building had more than started in 1917, the marine leg burned and a new one was erected, making the plant completely modern in every respect. The Folwell-Ahlskog Company of Chicago designed and erected the plant.

The elevator is of reinforced concrete construction, 75x240 on the ground plan and 185 feet to the top of the cupola. There are 30 circular bins with interstices and side pocket bins, each of the main bins being 20 feet in diameter and 94 feet in height. The working house is 48 feet square and the marine tower is 27x34 feet and 156 feet high. The marine leg is 98 feet in length and has a capacity of 25,000 bushels per hour. It is equipped with 212 feet of

36-inch Rexall Belt Conveyors, installed in the basement and discharging to the two 15,000-bushel legs.

The Morse Chain equipment in the elevator consists of a 125-horsepower drive, 12 inches wide and on 72-inch centers, for the lofter leg; a 50-horsepower drive for the power shovels, 5½ inches wide and on 60-inch centers; a hoist drive of 25 horsepower, 3½ inches wide and on 54-inch centers; a 15-horsepower drive, 3 inches wide and on 54-inch centers. The other legs in the elevator are operated by rope drive.

The elevator has been operating steadily since 1917 without a hitch and this year particularly has proved itself to be rapid in handling, economical in operation, dependable, and in every way satisfac-



ERIE & WESTERN ELEVATOR AT ERIE, PA.

of 1,500,000 bushels, this is comparatively small compared with the amount of grain it handles each year, and in a season like the last it is called upon to work overtime. The Pennsylvania Railroad anticipated this severe strain upon the house and equipped it with electric motors, the power to the lofter leg and to most of the other parts of the moving equipment being by Morse Silent Chain Drive. This transmission equipment was selected after years of experience and careful investigation. It is the rock bottom upon which emergency operation can be securely founded, and in addition is the most economical transmission so far as upkeep and operating cost is concerned that it is possible to install in a transfer grain elevator.

The Erie and Western Elevator is the result of the destruction by fire of two old elevators and a marine leg. When the new elevator was planned to replace the two that burned, the old marine leg was counted

28-inch 7-ply belting, elevates the grain from vessels to the marine tower and discharges it at the head into a garner located over a 400-bushel hopper scale. From the scale the grain is dumped into a second garner below, which discharges to a 25,000-bushel per hour lofter leg.

The storage house is equipped with two 15,000-bushel per hour elevator legs which discharge to two 2,500-bushel garners over two 2,000-bushel hopper scales. Cars are loaded by means of two car loading spouts and there is also one receiving pit with belt conveyor for receiving grain by cars. The bulk of the grain, however, is received by boat from the Northwest. Shipping facilities also include four

tory. This is the experience in every house where Morse Silent Chain Drives do the major portion of the transmission work. The drives are economical because their careful construction practically eliminates repair or upkeep expense over a long period of years, and further because the power is constant and highly efficient. There is no loss from slip or creep which even in the best of belts, runs to appreciably large percentages, and the application of power does not vary as is the case where stretch and shrinkage under different weather conditions has to be contended with. The house is one of the most efficient on the eastern lakes and is one of the important factors in the movement of grain to the Atlantic Seaboard. The dependence which the Pennsylvania Railroad puts in the elevator is in large measure due to the reliable operation of the Morse Silent Chain Drives which always give more for less, and save money on every revolution.



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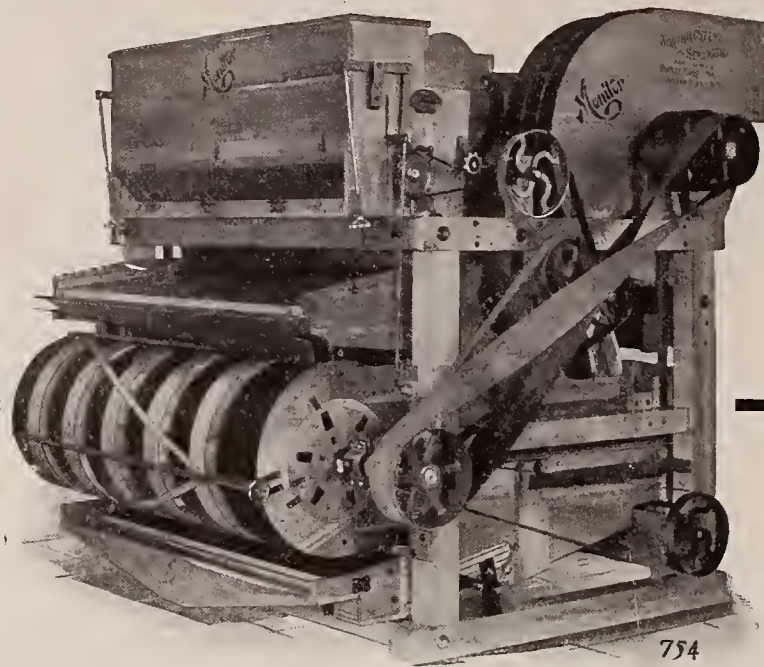
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Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



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Established in 1882.

VOL. XLI

CHICAGO, ILLINOIS, APRIL 15, 1923

NO. 10

A Wonder-House for Export Grain at Baltimore

New 4,000,000-Bushel Elevator to Replace B. & O. Houses, Which Were Destroyed by Fire Last Year, Will Contain Many Features of Interest to the Entire Grain Trade

THE loss by fire of the two old Baltimore & Ohio Elevators at Locust Point, Baltimore, Md., last year seriously handicapped the railroad and the port, but the loss is soon to be more than compensated by a new elevator, the designs for which were made by the John S. Metcalf Company of Chicago. The plans of the elevator include many new departures of great importance. On April 11 the construction contract was let to The M. A. Long Company of Baltimore.

Among the special features in the new elevator are many provisions for eliminating the dust explosion hazard. The plant, of course, will be of reinforced concrete construction, with an unusual amount of window space in both elevator and galleries. The specifications call for concrete work with smooth finish, painted with three coats, the

concrete, and all of the electrical apparatus will be dust-proof. The ventilation is exceptionally efficient.

These features indicate the amount of care that has been exercised to make the plant safe from dust explosion and fire. Just as careful attention has been given to making it efficient in operation and as rapid in its handling as possible. Most of the conveyor belts, which will all be furnished by the Diamond Rubber Company, will be 42 inches wide. The power is electric and most of the transmission is Morse Chain Drive. The main scales, of Fairbanks make, are of 2,500 bushels' capacity, said to be the largest ever installed. The unloading equipment will include four mechanical car dumps and five sets of car shovels. The shipping facilities consist of galleries serving eight vessel

inches will cover four of the incoming tracks.

The unloading shed will have five pair of power shovels, driven from line shafts, at Track 1, one pair at each of the five receiving hoppers. On the other four tracks there will be mechanical grain car dumps. One Richardson Car Dump, with a proviso of meeting certain specifications, has been ordered but the other three dumps have not been contracted for. The dumper pits will be tributary to four longitudinal 42-inch belt conveyors, operating in tunnels, which will deliver to four 42-inch cross conveyors, also in tunnels, and discharging to the four receiving legs. Four of the receiving hoppers on Track 1, each of approximately carload capacity, will also discharge to the cross conveyors through valves operated by a lever located in the working house adjacent to the receiving legs. The fifth re-



DRAWING OF THE NEW B. & O. ELEVATOR AT LOCUST POINT, BALTIMORE, DESIGNED BY THE JOHN S. METCALF COMPANY

last to be glossy white so that there can be practically no dust accumulation on walls, ceilings, and spouting. Ledges where dust can lodge will be virtually eliminated. The dust collecting system will be most comprehensive. In addition to the floor sweepers, there will be dust collecting inlets at the boots of all elevators, at the ends of all conveyors, at all belt loaders, at the cleaners and the driers, the dust being conveyed direct to the dust house. All the bins, all the scale garners and all elevator heads are vented to the outside atmosphere. There are cut-off partitions provided at the working house end of all the conveyor belts to and from the conveyor galleries. An air blast system will keep the dust out of motor bearings and windings. There is also a vacuum dust collecting system for the cupolas of the working house and storage tanks. All the machinery and conveyor belts are grounded to take care of static electricity. Many of the electrical conduits are concealed in the

berths, four at Pier 6 and four at Pier 7. Working at full capacity the elevator can ship 150,000 bushels per hour.

The new plant will consist of a working house, with track and unloading shed, drip shed, storage house, drier house, dust house, transformer station, shipping galleries to and on Piers 6 and 7, and a marine tower with return gallery. In addition the railroad will have a steam power plant, office building, welfare building, and drier equipment. Part of this latter group will be the old buildings extended and improved, and part new.

The working house will be 240 feet long by 61 feet wide, of concrete construction. Most of the bins in the working house will be 87 feet deep. The track shed will extend along one side of the working house for 160 feet, and will be 18 feet wide, covering one railroad track. The unloading shed will be 160 feet long and 104 feet wide and will cover five tracks. The drip shed, 175x77 feet 6

ceiving hopper will discharge grain through a spout direct to leg 17. Five double drum car pullers will be erected in the basement of the unloading shed, and so arranged that cars on any of the five tracks can be handled in either direction. There will be two car loading spouts to load cars to Track 1.

The working house will have 20 elevator legs: Four receiving legs, each with two rows of 8x8x20-inch buckets and a 96-inch head pulley; seven shipping legs of the same capacity; four drier legs, each with one row of 7x7x16-inch buckets and 84-inch head pulley; four separator legs with 7x7x20-inch buckets; one clipper leg with 7x7x16-inch buckets. The legs will be driven by single reduction herring-bone gears and will discharge to garners over the Fairbanks Hopper Scales. The receiving, shipping, separator and clipper legs will discharge to scales of 150,000 pounds' capacity while the drier leg scales will be of 48,000 pounds' capacity. The receiving and shipping elevator heads will have switch valves

so that two sets of scales can be used for each. The heads of the separator, clipper and drier legs will have three-way turnheads, fully enclosed, by means of which the grain elevated in those legs will be discharged to either the adjacent main garner, or to the small garner, or through bypass to the telescope spouts on the bin floor. In the case of the clipper leg one regular discharge will be to the garner over the Carter-Mayhew Separators. Scales 1 and 12 discharge to two Mayo spouts, two shipping bins, the transfer belt, and a belt to storage bins. The other 10 scales discharge each to three Mayo Spouts, two shipping bins, the transfer belt, or two belts to storage bins, and through Mayo Spouts to two additional belts over storage bins.

In the spouting story of the cupola there will be one 48-inch reversible transfer belt conveyor which receives grain from all of the scales and distributes widely throughout the plant. In the distributing story of the cupola there are 13 Mayo Spouts, and five telescope spouts. A Carter-Mayhew Disc Separator, two units high, will also be on this floor.

On the first floor of the working house there will be eight Invincible Warehouse Separators, arranged to spout to the four separator legs, and two Invincible Oat Clippers, feeding to one clipper leg.

dust from the drying grain will be drawn into the dust collecting system and discharged automatically from the building. A feature of the drier will be the exceptional amount of light working space and ventilation in the drier building, and the driers will also be furnished with automatic temperature controls which will enable the operator to secure any temperature desired. The inside of the drier will be finished with a hard finish gloss paint.

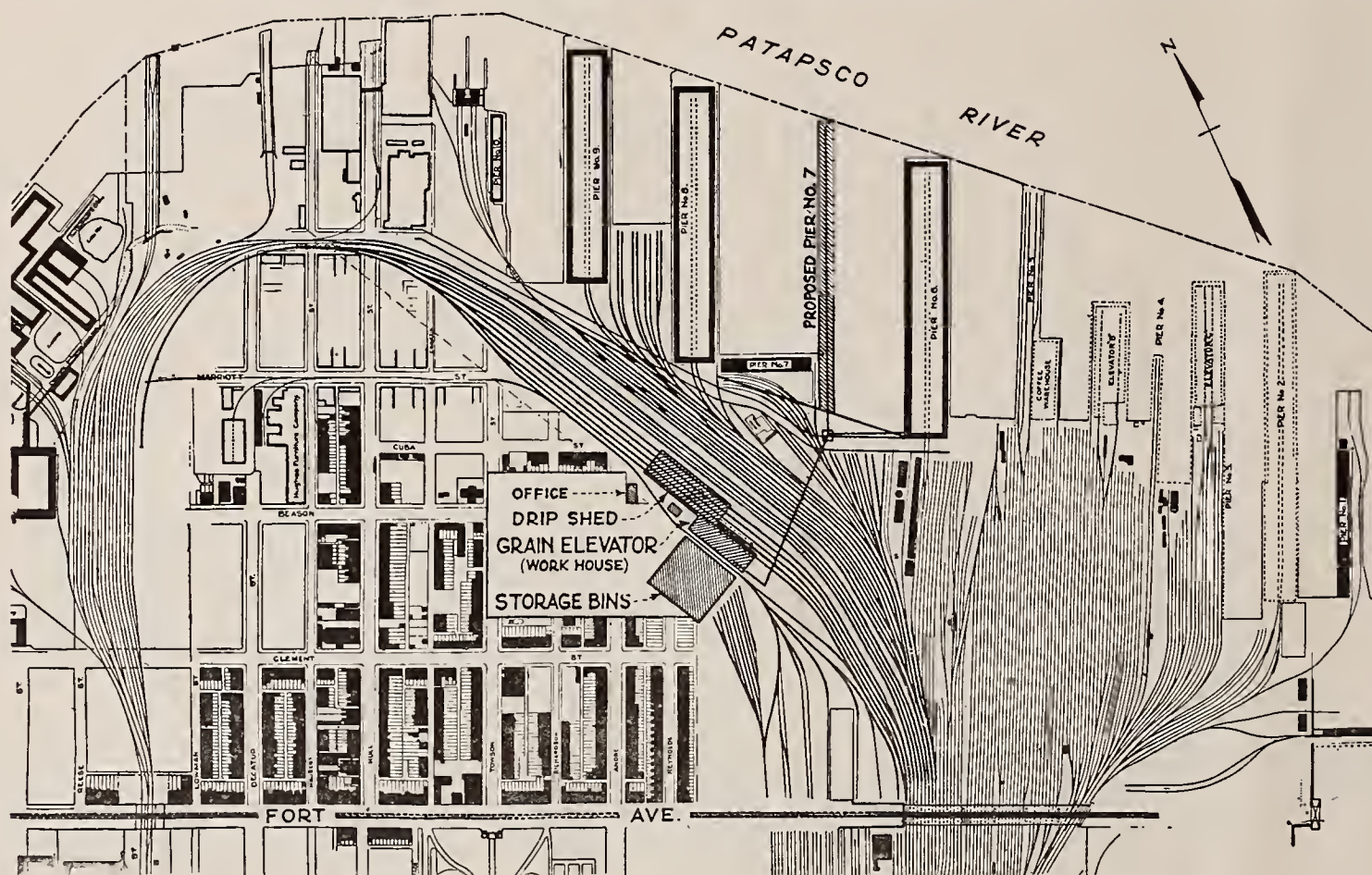
The shipping arrangements are particularly complete. The west row of working house bins, 15 in number, will be the shipping bins. The valves of all the shipping bins will be operated from a central control station, the bins spouting direct to six 42-inch belt conveyors on the mezzanine floors in the first story, which will extend south to Tower "A" of the conveyor galleries, thence across the tracks to Tower "B." From Tower "B" to the outer end of Pier 7 there will be four 42-inch conveyors so arranged that three of them can, by means of trippers and dock spouts, discharge grain to a vessel on either side of the pier. From Tower "B" two 42-inch conveyors extend to Tower "C," and also from Tower "C" to Tower "D." From both Towers "C" and "D" there will be a conveyor extending the full length of the pier and another extending

leather belting will be used. Practically all the drives for elevator legs and belt conveyors will have friction clutches. There will be 120 electric motors, ranging from 1½ to 175 horsepower. The transformer house in Tower "A" will have three 400 K.V.A. transformers, three of 40 K.V.A. and three of 1,000 K.V.A. The controls and safeguards of the electrical power equipment are as nearly perfect as it is possible to make them.

In fact, if anything has been overlooked to make the elevator conform to the highest engineering and grain handling requirements, it would be hard to find. In every detail the plant conforms to the new specifications as approved by the fire underwriters committee and that the house will be a success is assured.

FLAX AND WHEAT AS MIXED CROPS

Farmers in Goodhue County, Minn., find that mixing a small amount of Spring wheat with the flax and growing a flax-wheat mixture is a much better proposition than growing either crop alone, according to A. C. Dillman, of the Office of Cereal Investigations, United States Department of Agriculture. This method has been practiced for 10 to 15



GROUND PLAN OF THE NEW B. & O. ELEVATOR, PIERS AND TRackage, AT LOCUST POINT, BALTIMORE

Each pair of machines is fed from either or both of two bins. The screenings are carried direct to the dust house for sacking by pneumatic conveyor. There will be two passenger elevators, one operating between the first floor and the top floor and the other from the bin floor to the top.

The storage house will be 224 feet 4 inches long by 208 feet 4 inches wide. It will have 182 cylindrical bins, each of 13,570 bushels' capacity and 153 interspace bins, each of 3,400 bushels. The cylindrical bins will be 15 feet 4 inches in diameter and 96 feet high. In the story over the bins there will be 10 48-inch belt conveyors. Each conveyor will have a self propelled two-pulley tripper which will discharge on either side of the conveyor. Beneath the bins there will be seven 42-inch belt conveyors which discharge to the shipping legs of the working house. There will be a Zeleny Thermometer System in all the storage bins arranged to take the temperature at distances 10 feet apart from bottom to top. The readings will be recorded in a special room over the bins.

A Hess Standard Drier and Cooler, installed in separate concrete buildings, will consist of eight 750-bushel units, each having a garner of 6,000 bushels' capacity. All the floors in the drier will be built of steel grating and arranged so that all

half the length. There will be 59 dock spouts on the two piers, 6 and 7, and 14 trippers. In the whole plant there will be 40,596 feet of conveyor belting and 9,314 feet of elevator belting.

At the outer end of Pier 7 will be a marine tower which will contain two pneumatic units with a capacity of 2,000 bushels per hour each. There will be two automatic scales in the tower, and there are two elevator legs and a 30-inch belt conveyor which discharges to either of legs 19 or 20 in the working house or direct to car on Track 1. The Marine tower handles local grain from bay boats.

The plant will have a most elaborate system of light signals which will eliminate possibility of mistakes in routing. There will also be a pneumatic ticket carrier system reaching all working stations, and a plant telephone system with 41 phones and additional capacity of 21 phones. All the lights in the signal system will have vapor proof globes and will be installed in Crouse-Hinds Condulets.

The power operating the plant is electric. The elevator legs in the working house will be driven by Fall Reduction Gears. All other drives will be Morse Silent Chain, except the shaker drives on clippers and separators, the drive to Carter-Mayhew Separators, the drive to hoist, and drives to exhausters in marine tower and dust house, where

years in Goodhue County, the acreage of the mixed crop increasing each year until in 1922 when it was estimated that about 90 per cent of the flax acreage of the county was grown as a mixed crop.

The mixed crop is grown primarily for the flax, and often only enough wheat is added to make the crop handle easily. Although the most common seed mixture is about 2 pecks of flax and 2 pecks of wheat per acre, many farmers use only 1 peck of wheat to 2 pecks of flax, the seeding generally being done by mixing the seed and sowing with a common grain drill. Marquis wheat is used because it usually ripens at the same time as the flax.

The chief advantages of growing the mixed crop are its ease of handling in harvesting, shocking, and threshing as compared to flax alone; less trouble from weeds; less chance of crop failure; and less chance of disease. The mixed grain as it comes from the threshing machine usually is stored on the farm until it can be separated by the farmer with a homemade separator, after which each crop is marketed separately. Most farmers believe also that they receive a greater return from the mixed crop.

The mixed crop, however, says Mr. Dillman, is not a cure-all for all flax troubles. Its chief value is in its ease of handling. Flax in a mixed crop

will not produce a big crop on land that is not desirable for flax alone. It should be sown early, or the wheat will very likely be poor, and the flax will have no advantage from the wheat.

The Minnesota Experiment Station is interested in the mixed crop, especially for farmers in the southeastern part of the state. Experiments have been conducted at University Farm, St. Paul, Minn., by Prof. A. C. Arny, who now has a bulletin in press describing these experiments. Other states have planned to conduct experiments with the mixed crop this year.

THE EFFECT OF WEATHER ON CROPS

Definite relations exist between weather conditions and the yields of various important crops. Studies have been conducted by the Weather Bureau, United States Department of Agriculture, to determine the influence of the weather on the yield of potatoes, corn, oats, and cotton. The effort has been to show the kind of weather that has the greatest influence in varying the yield of a crop, as well as the most critical period of growth. There is a possibility, many believe, that the yield of several important crops may be predicted considerably before harvesting time from a knowledge of antecedent weather conditions. The weather must be taken into account up to about the harvest date for oats, but the probable yield for corn can be determined by the end of July and of cotton at the end of June in the eastern part of the belt.

OFFICIAL GRAIN STANDARDS FOR RYE

For the purpose of the official grain standards of the United States grades for rye, effective July 1, 1923:

Section 1. Rye.—Rye shall be any grain which before the removal of dockage consists of 50 per cent or more of rye, and when free from dockage contains not more than 10 per cent of cereal grain of a kind or kinds other than rye.

Sec. 2. Basis of determination.—Each determination of dockage, moisture, temperature, odor, onions, garlic, and live weevils or other insects injurious to stored grain shall be upon the basis of the grain including dockage. All other determinations shall be upon the basis of the grain when free from dockage.

Sec. 3. Percentages.—Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Sec. 6. Cereal grains.—Cereal grains shall include wheat, barley, emmer, spelt, einkorn, corn, grain sorghums, oats and rice only, and shall not include non-grain sorghums, buckwheat, flax-seed, and wild oats.

Sec. 7. Damaged kernels.—Damaged kernels shall be all grains and pieces of grains of rye and other grains which are heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise distinctly damaged.

Sec. 8. Heat-damaged kernels.—Heat-damaged kernels shall be kernels and pieces of kernels of rye and other grains which have been distinctly discolored by external heat or as a result of heating caused by fermentation.

NOTE: Rules for Dockage, Foreign Material, Percentage of moisture and Test Weight per bushel are similar to those for other grains.

Sec. 11. Garlicky rye.—Garlicky rye shall be all rye which has an unmistakable odor of garlic or wild onions or which contains garlic or wild onion bulblets in a quantity equal to one or more bulblets in 1,000 grams of rye.

Garlicky rye shall be graded and designated according to the grade requirements of the standards applicable to such rye if it were not garlicky, and there shall be added to, and made a part of, the grade designation the word "garlicky."

Sec. 12. Weevily rye.—Weevily rye shall be all rye which is infested with live weevils or other insects injurious to stored grain.

Sec. 13. Ergoty rye.—Ergoty rye shall be all

rye which, after the removal of dockage, contains ergot in excess of 0.3 per cent.

Sec. 14. Smutty rye.—Smutty rye shall be any rye which has an unmistakable odor of smut, or which contains spores, balls, or portions of balls, of smut, in excess of a quantity equal to two balls of average size in 50 grams of rye.

NOTE: Designation of weevily rye, ergoty rye, and smutty rye shall be made in the same way as that for garlicky rye.

Sec. 15. Grades.—All rye shall be graded and designated No. 1, No. 2, No. 3, No. 4, or Sample Grade, as the case may be, according to the respective requirement thereof as specified in these standards.

No. 1.

- (a) shall be cool and of natural odor;
- (b) shall have a test weight per bushel of at least 56 pounds;
- (c) may contain not more than 13 per cent of moisture;
- (d) may contain not more than 2 per cent of damaged kernels and no heat-damaged kernels; and
- (e) may contain not more than 3 per cent of foreign material other than dockage, which 3 per cent may include not more than 1 per cent of foreign matter other than wheat.

No. 2.

- (a) shall be cool and of natural odor;
- (b) shall have a test weight per bushel of at least 54 pounds;
- (c) may contain not more than 14 per cent of moisture;
- (d) may contain not more than 4 per cent of damaged kernels and no heat-damaged kernels; and

TABULATION OF GRADE REQUIREMENTS FOR RYE

(Section 15, tabulated and abridged)

Grade	Condition	Minimum test weight per bushel.	Maximum limits of				
			Moisture	Damaged kernels		Foreign material other than dockage	
				Total (rye and other grains)	Heat damaged (rye and other grains)	Total	Foreign matter other than wheat
			Lbs.	%	%	%	%
1	Shall be cool and of natural odor	56	13	2	0	3	1
2	Shall be cool and of natural odor	54	14	4	0	6	2
3	Shall be cool and of natural odor	52	15	7	.5	10	4
4	Shall be cool and may be musty or slightly sour	49	16	15	3.0	10	6

Sample Grade.—Sample grade rye shall be all rye which does not come within any of the grades from Nos. 1 to 4, inclusive, or which has any commercially objectionable foreign odor except of smut, garlic, or wild onions, or is very sour, or is heating, hot, or otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

- (e) may contain not more than 6 per cent of foreign material other than dockage, which 6 per cent may include not more than 2 per cent of matter other than wheat.

No. 3.

- (a) shall be cool and of natural odor;
- (b) shall have a test weight per bushel of at least 52 pounds;
- (c) may contain not more than 15 per cent of moisture;
- (d) may contain not more than 7 per cent of damaged kernels, which may include not more than 5 per cent of heat-damaged kernels; and
- (e) may contain not more than 10 per cent of foreign material other than dockage, which 10 per cent may include not more than 4 per cent of matter other than wheat.

No. 4.

- (a) shall be cool and may be musty or slightly sour;
- (b) shall have a test weight per bushel of at least 49 pounds;
- (c) may contain not more than 16 per cent of moisture;
- (d) may contain not more than 15 per cent of damaged kernels, which may include not more than 3 per cent of heat-damaged kernels; and
- (e) may contain not more than 10 per cent of foreign matter other than dockage, which 10 per cent may include not more than 6 per cent of matter other than wheat.

Sample Grade.

Sample Grade rye shall be all rye which does not come within any of the grades from Nos. 1 to 4, inclusive, or which has any commercially objectionable foreign odor except of smut, garlic, or wild onions, or is very sour, or is heating, hot, or otherwise of distinctly low quality, or contains small, inseparable stones or cinders.

REDUCING WHEAT ACREAGE

Governor Preus of Minnesota came to Chicago on April 6, to discuss the advisability of calling a conference of the governors of the wheat growing states to determine upon a program of reduction of wheat acreage. John R. Mitchell of the Federal Reserve Board and Curtis L. Mosher of the Federal Reserve Bank of Minneapolis for some time have been advocating acreage reduction. At a recent meeting in the Northwest, Mr. Mitchell said:

"American farmers are faced with the same economic laws and conditions that govern all other business in the nation.

"It is sheer folly for American farmers, under present high costs and economic conditions in the United States to attempt to compete with the other wheat growing nations of the world, with their low costs.

"American farmers cannot be the only business people in the nation to ignore economic laws without meeting disaster.

"There is only one way in which the American wheat farmer can raise wheat at a profit, and that is to curtail his production to a point where it is a trifle less than the domestic consumption.

"Farmers should receive at least \$1.50 a bushel for their wheat in order to be on a parity with what they have to pay for their life necessities."

At this meeting a definite plan was proposed:

First, decrease of wheat production of the nation to meet the wheat consumption.

Second, increase flax production.

Third, a campaign to increase consumption of wheat in the United States.

Fourth, greater diversification of farm crops, to increase the sources of income.

Fifth, more co-operative marketing.

It was this program which Governor Preus had in mind when he came to Chicago. But there he came in contact with men who have had more experience with farmers than Mr. Mitchell or Mr. Mosher evidently have. It was pointed out that farmers produce as individuals, and many would increase their acreage when they heard that a reduction campaign was in progress.

Last spring's corn acreage reduction campaign is cited as an example. A 15 per cent reduction was advocated generally among corn belt farmers, but the figures show what happened—in 1920 the corn acreage in this country was 100,699,000; in 1921 it was 103,740,000, and in 1922 it stood at 102,428,000.

"Similar attempts," said John J. Stream of the Chicago Board of Trade, "never have worked out because of the inability to make all producers agree. But despite the apparent impracticability of the plan, it is sane compared with many proposals now being advocated, some of which even take the form of bills before legislatures.

"In the last analysis it is found that acreage is regulated by the law of supply and demand. The natural law is that when prices are too low for a fair profit, the farmer plants less of that particular product; when prices are very high, production increases until there is again a natural readjustment. Those studying the acreage reduction proposal are very properly stressing one fact quite generally ignored by theorists who would regulate grain prices by law. It is that the price of wheat is not a domestic price but a world price. The wheat crops of the world are in sharp competition. The farmer's present trouble is due very largely to the fact that the European market on which he relied to take his surplus has been badly impaired, as pointed out frequently by cabinet members, economists, bankers and others.

"If the prosperity of the farmer can be stimulated in any way, the grain exchanges will welcome it for their own prosperity like the prosperity of the nation depends on that of the farmer."

With the present increase in population some agricultural economists say this country may be wondering where it is going to get its wheat within the next 15 years. Seasons are so uncertain that no man can tell whether American wheat growers are facing a period of short crops or not.

There are economists who think a wheat acreage

reduction could be brought about slowly, but wisely, through a diversification of crops. They point out that there are many acres of land in wheat regions that ought to be growing other crops. But converting wheat farming into some other systems is not a hurry up job.

Virginia, New York and Wisconsin were once great wheat states, but they found that growing wheat as a single crop was unprofitable, these economists say. Today many states, once heavy wheat growers, are raising livestock, building up dairies, and growing crops for animal feed. They have cut down their wheat crop until some of them are not producing enough for home consumption.

It is believed the same thing will occur in many of the present wheat growing states; that economic pressure will force it.

Wheat yields are already so low in some sections that this grain crop can not be profitably grown, even at a good price. In some parts of Montana and portions of the Dakotas farmers would suffer with almost any system of farming and persistent wheat growing has aggravated their difficulties.

It has been suggested that probably the best thing to do would be for wheat sections gradually to work over to mixed farming—not cut out wheat altogether, but reduce the acreage in favor of Clovers, Alfalfa, and soy beans and use them as a basis for livestock farming. The growing of barley is also recommended so that many of the unprofitable wheat farms can be used in developing the bacon hog business, along with sows to finish skim milk. Rye—eaten by camels of the desert and the sledge drawing reindeer of the north—can be grown usually in any wheat section in this country and is a good feed for livestock.

"JIM DUNN"

BY HOOZUS

Jim Dunn, who runs the elevator at Sperry Siding, says: "A short spell back, a young feller come a 'rushin' int' th' office, with a book under his arm, an' right away he begins t' release a siclon o' talk 'bout th' sikollogy o' bizness an' how th' book he was a'sellin' told all 'bout it, an' if I wanted t' get th' real efishincy out o' my bizness I had t' have that book.

"Well, I see he had too big a start for me t' stop him right away, so I let him go on an' jest laid back an' waited for a openin', an' when it come I says t' him, I says: 'You must be needin' a rest, young feller, an' while ya're a'gettin' it I'll talk a little. I been a'gettin' a trade paper for a good many years,' I says, 'that tells me all I wanta know 'bout this here bizness, an' while there's a word in it now an' then that sorta sticks me, there's enough familary ones around it so's I can figger it out; but if I gotta keep a dickshunary t' tell me what th' name on th' cover o' that book means, howinell'm I going t' know ennything 'bout what's inside o' it?"

"Well, that kinda checked him up for a bit, but I see he was a'goin' t' start again, so I says t' him, I says: 'Now looky here, young feller, I reckon ya're doin' this for a livin', an' that bein' th' case ya better be movin' along t' th' next place, 'cause ya've got 'bout as much chance a'sellin' that there book here, as ya'd have a'selling foot warmers in th' South Seas.'

"That fixed him, an' he slammed right out."

LITTLE TIPS FROM "JIM DUNN"

Jest because ya give a farmer a grade more'n it's worth, is no sign th' feller on th' other end is a'goin' t' do th' same.

There's stamp collectors an' coin collectors, but th' hardest o' all is bill collectin'. An' like th' others, th' older they are, th' harder t' collect.

It's a whole lot cheaper t' pay a high-priced man for what he does, than it is t' pay a cheap man for what he don't.

It begins t' look like them blocs they got in Congress oughta be called "cement blocks;" they got jest 'bout as much sense.

A dozen sparks in a good chimney is safer'n one in th' waste basket.

Payin' more'n th' stuff is worth, an' gettin' it,

may make ya think ya're doin' bizness, but it can't fool your books at th' end o' th' year.

In bizness, ya gotta let th' people know where ya are, an' a good place t' do it is in your trade paper. Ya can prove this with a little try.

Ya can't keep 'em waitin' nowadays, an' a worn-out engine is bound t' hold things up—sides makin' ya lose your religion.

NOTED CROP EXPERT MAKES CHANGE

Nat C. Murray, chief statistician of the crop reporting service of the United States Department of Agriculture, has resigned to become statistician and crop reporter for Clement, Curtis & Co., Chicago. Mr. Murray, who succeeds the late P. S. Goodman, took up his duties late last month.

"For years Mr. Goodman was recognized as one of the world's ablest crop reporters," said Allan M. Clement in announcing the appointment of Mr. Murray. "We know of only one man capable of maintaining Mr. Goodman's remarkable standard."

Mr. Murray has been connected with the Government crop reporting service for 19 years. He



NAT C. MURRAY

has traveled widely and has intimate knowledge of conditions in every state as well as in foreign countries. He represented the Government at the general assembly of the International Institute of Agriculture in Rome last year, serving as chairman of the Committee on International Crop Statistics. He has been a recognized writer on agricultural economics and statistics for many years. Mr. Murray was born in Cincinnati in 1872, the son of Charles B. Murray, a leading grain and pork statistician of 25 years ago.

Much of the expansion and improvement in the Government crop reporting service in recent years is credited to Mr. Murray. This expansion includes the making of quantitative forecasts of crop production from condition reports; monthly reports of farm prices; monthly rate of farm marketing of grain; Spring wheat production by varieties, showing especially the yearly production of Durum wheat; March 1 stocks of wheat in country mills and elevators; index numbers of crop prices, live stock prices; crop yields; normal per capita consumption of wheat flour by states; monthly changes of live stock supplies on farms; wages, supply and demand of farm labor, and land values. His new work will be very similar to his Government work.

CANADIAN CROP FIGURES

The Dominion Bureau of Statistics has challenged the recent statement, originating with the *Winnipeg Tribune*, that the Bureau had overestimated the wheat crop of 1922. The *Tribune's* statement was as follows:

"The Dominion Bureau of Statistics was created by the Dominion Government to disseminate really reliable information on the commerce of the country. It was to give buyers and sellers of commodities approximately correct figures of what Canada had to export or would need to import.

"Last fall it circulated figures on the crops of Canada, giving a total production of some 411,000,000 bushels of wheat. Now the bureau revises its acreage estimates by 2,000,000 acres and cuts the wheat production to 375,000,000 bushels, or 36,000,000 bushels less than the estimate given to the world when the fall wheat rush was on."

On April 2, however, the Bureau issued the following:

There is no foundation for the above statements of the *Winnipeg Tribune*. The Dominion Bureau of Statistics did not issue last fall, or at any other time, any estimate of 411,000,000 bushels for the wheat crop, and has not revised its final estimate of the acreages for 1922.

The figures actually issued by the Bureau of Statistics as to the wheat crop of Canada for 1922 are as follows:

Acreages	
Preliminary estimate (June 30).....	22,464,000
Revised estimate (July 14).....	22,728,900
Final estimate (Nov. 29).....	22,422,693
Yields in Bushels	
Forecast from condition (June 30).....	339,433,000
Forecast from condition (Aug. 10).....	320,968,000
Preliminary estimate (Sept. 11).....	388,773,000
Provisional estimate (Nov. 29).....	391,425,000
Final estimate (Jan. 19).....	399,786,400

GOVERNMENT TO GIVE UP BARGE LINES

Secretary of War Weeks recently stated that the Government does not intend to stay in the business of operating barge lines on the inland waterways, but will withdraw as soon as private capital provides facilities to take the place of Federal barges. The Government operation has demonstrated that the business is profitable, and the recent river appropriations by Congress will make the business more secure.

Facilities for handling grain from Cairo, St. Louis and other ports are already extensive and have been used to good purpose. Cairo has trans-shipped a vast grain tonnage from cars to barges since the facilities for this work at the Halliday Elevator were completed. When private capital once becomes interested in barge lines they will undoubtedly find that the tonnage offered will more than keep up with the facilities.

Steam navigation on the Mississippi began with the journey of the steamboat *New Orleans* from Pittsburgh to New Orleans, in 1811, under the spur of the aggressive initiative of Nicholas Roosevelt and Robert Livingston.

One hundred years later, a replica of this boat was constructed in Pittsburgh, and the centennial of steam navigation on the inland waters was marked by its journey down the river. At New Orleans, after it had served its purpose, the staunch little hull was purchased by a company of experimenters, who put it into service on Bayou Lafourche. Later, they sold their stock to a competing railroad at a nice profit and the *New Orleans*, with a gasoline engine, is now oyster lugging, somewhere about the mouth of Atchafayala—no longer competing with the railroad.

For 50 years prior to 1807, there was a busy traffic on flatboats and rafts, bringing produce down the Mississippi, then being broken up and sold for lumber and timber while the crews journeyed northward by land.

By 1850, a great commerce was on the Mississippi and its tributaries and the entire valley looked

and worked "north-and-south" by the "River Route." Over 200 crafts had New Orleans for their home port, and about 800 more plied out of St. Louis, Cincinnati, Pittsburgh and Louisville. There are, literally, hundreds of old towns, on now deserted smaller streams, to which boats plied regularly, 70 years ago.

The Civil War broke the "North and South" habit, but until the middle of the 1880's, there were still many boats and barge lines on the river. However, the proportionate volume of business steadily ebbed from the rivers to the rails. Water transport, for about 70 years, had been the best of its sort in the world. The Mississippi River steamboat of the 1850's and 1860's, was the last word in steam engineering and navigation. It was also about the last word in rapid and economical transport of any sort then in existence.

Then the railroads began to develop. By 1900 there was hardly more than a scattered fleet left. By 1915, there was, almost literally, no general traffic on the inland rivers.

Then the Great War presented a situation never before known. The railroads could not handle the business offered them. Conditions had so changed that new railroads could not be built with any expectation of profit on the investment. Even in 1914, it had become apparent that the growing needs of the interior United States demanded a use of the inland rivers in supplement to the full-time use of the railroads—not as competitors, but as necessary augmentation of available facilities for movement of traffic. John H. Bernhard, Holland navigation and waterway engineer, conducted a successful experimental voyages on "Barge Number 5." He had perfected arrangements to launch a corporation to finance a large scale navigation company—but the World War upset all plans.

Then, in the peak of the war, when the United States "went in," one of the war measures was a government-constructed, owned and operated boat and barge line on the Mississippi River, and on the Warrior River to the coal and iron fields of Alabama.

The craft constructed were modern tow boats and modern self-propelled barges—freight-carrying and freight-towing boats, with scientifically constructed barges. They are adaptations of the types which have succeeded on the Elbe, the Rhine, and the Seine, the Volga and the Danube. They abandon the appearance and all the precedents of the old river boats. And they have proven freight-moving economies and speed of movement—justifying everything that the friends of waterway navigation have ever claimed.

Figures collected by the Mississippi barge service during the last operating year, show that tows of 16,000 tons, equivalent to 800 carloads, and the cargo of two ordinary ocean-going freighters, are brought down the river, with one tow-boat, at a cost of movement of nine-tenths of 1 mill per ton mile—the cheapest freight movement cost on earth! Far faster than average freight movement by rail!

And now, a valley-wide movement is under way for the erection of the necessary standardized port facilities and terminals, linking boat and barge lines with railroads. Concurrently, there is another movement, for the development of a definite policy of co-operation between the railroads and those interested in utilizing the water facilities. This extends to the use of through bills of lading, sharing of charges on through shipments, and such mutual aid as is practiced among the railroads.

At present there are 11 modern tow boats and 55 barges operating on the Mississippi River. These carried, last year, about 650,000 tons of commerce. This is just one-eightieth of the volume of commerce carried past the Netherlands-German frontier of the Rhine, in the last calendar year before the World War. It is one-one hundred and fortieth part of the commerce handled on water in the harbor of New York proper in the last current year.

In other words, the present barge line is considered as a great laboratory experiment. Meantime, every effort is being made to make ready for the entry of private capital into inland water navigation. The opening of the Industrial Canal in

New Orleans, ties in with use of the rivers. The building of terminals at Memphis, Cairo, St. Louis, Natchez the opening of the Illinois Canal, all look to the same end. The Carnegie Steel Corporation has launched a fleet of barges, privately owned and operated.

It would take 60 times the present fleet—or 66 tow boats and 3,000 barges—to carry 39,000,000 tons of commerce a year. That is less than half the annual commerce in New York Harbor—and it is only 1½ per cent of the railroad tonnage of the United States, and not much if any over the average annual increase in the railroad tonnage in the Mississippi Valley alone.

The actual carrying capacity of the Mississippi Valley rivers, figuring the full use of all potential terminals facilities at all the river ports, runs to about 150,000,000 tons of commerce a year. Water-

way advocates foresee this volume of business on the inland rivers in the next 20 years, and this business carried on in full co-operation with railroads and both rails and boats used to full speed, full time, full capacity.

Behind all this, behind the movement to continue the Government navigation laboratory experiment, behind the movement for standardized terminals, behind the movement for channel-maintenance on a "year-around-dependable navigation" basis, behind the movement for complete co-ordination and co-operation between the rail lines and the water carriers—with a vision of 13,000 miles of used navigable inland waterways linking with a 3,000-mile inter-coastal canal system along the Gulf Coast and the Atlantic Coast—is an organization of business interests throughout the Mississippi Valley called the "Mississippi Valley Association."

How Federal Inspectors Grade Hay

A Brief Description of How the Federal Hay Inspectors are Trained and of the Procedure Employed in Judging Hay Grades

By K. B. SEEDS*

MANY people after reading the new Federal hay grades do not seem to understand how these grades can be applied in ordinary practice by hay inspectors and others. It is claimed that the grades are too technical and some people apparently believe that it is necessary for inspectors to make an actual analysis of a sample when grading a lot of hay.

Definite limits are fixed for each factor entering into the Federal Hay Grades but it is not expected

receiving instruction. On some of them the men are asked to estimate the numerical grade which is based entirely on the color. After this has been done the prospective inspectors are told the true grade as determined by the analysis and if necessary the reasons for assigning the grade are discussed. The class works with samples in this way until the members reach the point when they can estimate the grade accurately practically every time. The percentage of mixture of various hays and foreign



FEDERAL INSPECTORS STUDYING HAY GRADES AT THE GOVERNMENT LABORATORY AT ALEXANDRIA, VA.

that inspectors will make any analyses. This would take entirely too long to be practical. There have been some definite limits in nearly every system of hay grades used in the past but these never were based on definite research. Those making former grades merely estimated the maximum amount of the various factors which they thought should be permitted in a grade and made the grade accordingly without even attempting to determine by actual analysis whether their estimates were correct. The Federal hay grades are based on results obtained from the analysis of a large number of bales of hay and field samples at the Department of Agriculture's Hay Standardization Laboratory.

Federal hay inspectors before being permitted to issue Federal inspection certificates are required to take several weeks training in the use of the United States grades. For these inspectors' schools a large number of bales and box samples on which analyses have been made are prepared at the Department Laboratory. As these samples actually have been analyzed the grade for each is definitely known.

These samples are submitted to the inspectors

*Mr. Seeds, who is specialist in hay inspection in the Bureau of Agricultural Economics of the Department of Agriculture, has written this article for the purpose of answering some of the questions which have been raised by the trade concerning the work of the new Federal hay inspectors. It should clear up the misapprehension which exist in some quarters in regard to the work.

material in bale samples are studied in the same way. Finally, the men make estimates on sample bales for all factors and assign the grade and class as they do when actually making an inspection. The eyes of most men who have been inspecting or actually handling hay for some years can be trained in this way in a few weeks to interpret the Federal grades accurately and uniformly.

When these inspectors return to their homes after completing the training they go about making inspections much as they did in the past except the hay is examined more closely than it formerly was. In many cases now the inspector will shell a few heads to determine the stage of maturity of the hay when cut. He also will look more carefully for each factor affecting the grade and give it its proper weight instead of merely looking at the hay as a whole as was customary in the past. Neither will he make any attempt when placing a grade on a lot to average the grade. Rather when two or more grades are present he will show on his certificate the exact number of bales or percentage of each grade examined. When 5 per cent or more of foreign material is present this will also be stated on the certificate in the manner prescribed in the grades.

For the present, the Department will be able only to train in the use of the grades those desiring to become inspectors, together with a few representatives of the extension forces of agricultural colleges. Producers and dealers can learn to determine with-

out much difficulty the stage of maturity of their hay and by contact with trained inspectors and others soon will be able to estimate the grades fairly accurately, though the last word as to the actual grade always will be with the regularly designated Federal inspector.

It is realized that these inspectors, even though carefully trained, unintentionally may change their ideas about the grades when stationed at different points. To prevent this, various methods of supervising their work are being devised by the Department. It is also planned to have occasional meetings of groups of inspectors where they can examine samples with men in the Department and keep their interpretation of the grades uniform.

THE FAILURE OF THE FARM BUREAU

BY TRAVELER

To anyone who has given the matter serious thought, it is becoming more and more evident that the Farm Bureau has reached the apex of its popularity, and is now sliding steadily downward to inevitable dissolution. Originally conceived for the purpose of teaching the farmer better farming methods, it has been prostituted to the various needs of ambitious politicians and glib-tongued

cern is more conversant with the needs of its customers than anybody else, and can consequently render better service if allowed to work things out in its own way.

The character and ability of certain seekers after the office of agent, is another dampening influence which is operating to dethrone the farm bureau. Farmers do not feel like entrusting their welfare to the dictates of any man who, they know, has made a rank failure of the operation of his own farm. There are many such aspirants to the office of farm agent, and apparently their only and ultimate object is a soft billet and a chance to be in the limelight. Such agents can never be a success for at least two reasons. One is that they are lacking in ability, and the other is that they can rarely gain the confidence of their farmer neighbors. The average farmer is apt to be jealous of another farmer advanced to a position of importance, and even though the latter had real ability, his farmer friends would always be more or less suspicious of him.

To give a concrete example. Recently, one of these aspirants was talked of for the position of agent, and a very prominent farmer in his territory declared that if this appointment were made, he would get out his machine and drive the country and use his influence to defeat the officials who

is in the territory along the American shore of Lake Erie, and probably extends only a short distance inland.

While corn is the preferred crop attacked by the worm, at present the greatest loss is suffered by market gardeners, through its feeding on sweet corn, pop corn, vegetables, and a variety of other plants. The pest is rendered more difficult of control because of its habit of feeding and infesting a great number of plants, including field crops, flowers, grasses, and weeds. Control of the pest in these areas of market gardening is suggested as possible through cultural methods and the destruction of all infested material by burning or burying during the fall, winter, and early spring.

RIVALRY BETWEEN WINNIPEG AND FT. WILLIAM

Winnipeg's claim of being Canada's premier grain market is to be hotly contested by Fort William and Port Arthur, according to the findings of the Fort William Sample Market and Produce Exchange's investigation into the subject of a new grain marketing plan for the Canadian Head of the Lakes. This organization is at present making every effort to bring the grain market to Fort William, and an important factor toward this desire



John E. Brennan



Henry A. Rumsey



Ed. Hymers

ENTERTAINMENT COMMITTEE FOR THE ILLINOIS GRAIN DEALERS CONVENTION AT CHICAGO, MAY 15 AND 16

theorists, until today it is but a shadow of its original self.

Many of the agents have entirely lost sight of the altruistic service they were paid to render, and have instead been absorbed in the commercial possibilities their position gave them access to. These activities have not only tended to divert the farmer from his real work upon the farm, but have demoralized the regular channels of business, so that the farmer today is unable to obtain the really good service he enjoyed at the hands of business men before the advent of the Farm Bureau.

The farmer, it appears, is now beginning to wake up to this fact, and this is evidenced by the failure of the membership campaigns in various sections of the country. Farmers who paid \$30 for three-year memberships in the past, set their thought processes to working, and decided that they would invest their \$30 in something that would give more tangible results. As one farmer put it: "If I invest \$30 in a piece of machinery for my farm, I know where it is; but if I give it to this here farm bureau, I don't know whatinell becomes of it."

Another source of increasing antagonism to the farm bureau is the co-operative elevator. These companies are beginning to resent the farm bureau's interference with their business. Take the matter of fertilizer, for instance. Many of the co-operative companies would prefer to handle this commodity themselves, instead of acting as the intermediary of the farm bureau. In other words, they are beginning to realize that a business con-

appointed the agent, should they attempt to run for office again.

It would appear, therefore, that if the farm bureau is to continue to function, it will have to drop its commercial department and center its energies entirely upon the purpose for which it was originally created—that of keeping the farmer in touch with up-to-date methods of farming. It is, however, doubtful if it can regain its prestige in this direction, as too many farmers have already lost confidence.

THE CORN BORER MENACE

Reports announcing in 1921 the finding of a slight but extensive infestation of the European corn borer along the southern shore of Lake Erie in Pennsylvania, Ohio, and Michigan, by United States Department of Agriculture investigators, indicate that this insect may soon enlarge its field of operation and invade the area of most intensive corn production, and suggest that steps to combat the pest must be taken promptly if future losses from its work are to be prevented or overcome.

To date the European corn borer is known to be present in three separate areas in the United States comprising a total area of more than 10,000 square miles. The most severely infested area is in New England and extends along the Atlantic Coast and a short distance inland. A smaller area in eastern New York in the section surrounding Schenectady and Albany is also infested. The third or largest area of infestation in the United States

is the proposal of the Province of Manitoba to place a tax of two cents on every \$100 handled in the option trading market of the Winnipeg Grain Exchange.

It is understood also that other governing bodies which have jurisdiction over trading centers are proposing special taxes on grain exchange trades, all of which will make it possible to do business cheaper at Fort William than elsewhere, U. S. Consul General Dwyre, Fort William, informs the Department of Commerce. The farmer's only hope to avoid such taxes will be to sell his wheat in a market where no such tax is in force, and the organization hopes that such a market may be in Fort William. The new marketing plan of the Fort William Exchange has been given the official approval of the Board of Trade and the City Council of Fort William.

CALL FOR FARM LOAN BONDS

Farm Loan Commissioner Lobdell has issued a call for redemption on May 1 of all outstanding 20-year 5 per cent farm loan bonds of the series 1918. There are \$55,032,000 of these outstanding and it is thought that new bonds can be issued at 4½.

An issue of Land Bank debentures is expected soon, as rates are more favorable now than they may be in the future. It is understood that the advice obtained by the Loan Board from the Federal Reserve governors would call for a discount rate above 5 per cent.

Chicago Making Ready for Illinois Dealers Plans for a Record Breaking Meeting of the Illinois Grain Dealers Association —Program and Entertainment Features Will Draw Great Crowds

WHEN the Illinois Grain Dealers Association meets in Chicago on May 15 and 16, it will be the first time since 1913 that the organization has come to the metropolis of the state for its annual meeting. In the 10 years that have passed many changes have taken place, not only in the Association, but in Chicago as well. One great fact remains true today as it was true a decade ago: Chicago is the greatest grain market in the world and on its exchange floor transactions are concluded every minute which represent the local movement of grain in Canada, in Argentine, in Australia, India, and in fact in every country where grain is grown or consumed. Here the grain of all the world is hedged at one time or another, and some parcels of grain are hedged a dozen times before they are consumed; that is why the pit transactions are of so much greater volume than the cash grain that is handled.

To a person who has never seen the Chicago pit in action, it seems an unintelligible jumble of noise and gymnastics. To the initiated it is a wonderful

All of these men are so well known to the trade, representing the young progressive element on the Board, that it is scarcely necessary to assure the members of the Association that they will be in good hands during their stay.

At the banquet on the evening of Tuesday, May 15, the Chicago Board will spread itself on an entertainment that will be long remembered. Henry A. Rumsey will be toastmaster and will keep things moving at a sharp pace. The convention members will be well entertained, that is certain, but the convention will offer more than that. The program, now in process of formation will contain features, which will have a vital bearing on the immediate business of every dealer.

There is no question more important to the grain trade than transportation, not the theoretical aspect, but those practical questions of car supply, car movement and rates. Negotiations are now under way with a man high in railroad affairs, for an address which will include a plain statement of the present condition of the railroads

at some time during the meeting, you may be sure.

The National Grain Dealers Association will be represented by President F. E. Watkins or Secretary Quinn and a splendid survey of the grain trade of the entire country can be promised, for whichever speaks for the National, he will have a message worth while, and the ability of both men is well known in Illinois.

Negotiations are under way for an arrangement with the Integrity Mutual Casualty Company, whereby group compensation insurance will be written for association members. This plan has been successfully adopted in Indiana and will have full discussion in the meeting. Members may also look for a report on the proposed agreement with the railroads as to rental charges for elevator sites.

In the past there has been one feature of the annual meetings in Illinois in which the Association has shown to rather poor advantage in comparison with some other state associations, and that is in the organization of discussions of subjects which, though more or less local in character, are important to shippers and should have thorough discussion, but which are not of great enough moment to warrant the dignity of a subject for a formal address. Such discussions in the past have been left to chance or to the inspiration of the moment, and in most cases the dis-



William E. Hirshey



George A. Wegener, Chairman



George E. Booth

ENTERTAINMENT COMMITTEE FOR THE ILLINOIS GRAIN DEALERS CONVENTION AT CHICAGO, MAY 15 AND 16

display of efficiency, accuracy, and integrity. A sign of the fingers exchanged across the trading floor becomes a binding contract between the traders, with, perhaps, thousands of dollars involved in the transaction. In no other industry does personal integrity enter so largely in everyday's work as in the pit transactions of grain, and the operation will be of interest to every down-state member of the organization. There are too many, even among regular grain dealers, who do not thoroughly understand the functions of the grain exchange. Dr. R. McGill, secretary of the Winnipeg Grain Exchange, recently said in effect that the chief function of the exchange was to provide a target for every half-baked theorist and unprincipled demagogue who wanted something to attack. Dr. McGill is a humorist, but even his quips are charged with meaning. The visit to Chicago this year will afford dealers an opportunity to learn at first hand the operation of the exchange and the great economic service it renders to every producer, consumer, and handler of grain.

Chicago offers many inducements to visitors at all seasons, but the program of the Illinois meeting and the entertainment to be furnished by the Chicago Board of Trade will make the trip so worth while on May 15 that no Illinois dealer will want to miss it. The committee appointed by the Chicago Board of Trade for the entertainment of those attending the convention, are George A. Wegener, chairman, Ed Hymers, William E. Hirshey, Henry A. Rumsey, John E. Brennan, and George E. Booth.

and what the grain men may expect in the immediate future.

Next in importance to rail transportation is that of roads. Quite likely the superintendent of the State Highway Department or someone equally conversant with road conditions, will outline the state program of hard road building for the current year. This, of course, will introduce Governor Small's proposal for a \$100,000,000 bond issue. In this connection it is of interest to know that, at a state-wide meeting held in Decatur on March 15, where the proposed bond issue was indorsed, E. M. Wayne of Delavan was named chairman of the Legislation Committee. It is the intention of this Committee to form a non-partisan organization in every county with the view of influencing the legislature to submit the bond proposition to a vote of the people. In the discussion on roads, therefore, some fireworks can be anticipated, for the bond issue has friends and also has some bitter enemies.

A man nationally prominent will have something interesting to say about the present socialistic tendency of our Government. Such an address has a wide territory to cover, for on every side the tendency toward socialism, or worse, is becoming more marked. Whether this address will include the recent bills submitted by Mr. Lantz and Mr. Kessinger, to the state legislature, and the widely discussed (and almost as widely adopted) co-operative marketing bill, it is impossible to say in advance, but those measures will have attention

cussions dragged or were omitted altogether. This year, we understand, quite a number of such subjects will be introduced from the floor by members who will be primed in advance and each discussion will be carried farther by another member who will be prepared. This will break the ice for a full and free discussion by the members in general and it is believed that this will prove a valuable and important feature of the meeting, for the greatest wisdom is found not in one mind, but in the collective ideas of many minds.

There will also be short talks by several members of the Chicago Board explaining particular features of terminal market operation which are not well enough known to the majority of shippers, and upon which misunderstandings sometimes arise. It is probable that these will include "Advantages and Disadvantages of Consigning and Selling to Arrive"; "Hedging"; "Car Inspection for Leaks"; and numerous other questions which affect the shipper almost every business day. All the discussions will be practical and illuminating and will give every dealer something definite and substantial to take home with him. The members will be made to feel, as never before, that the Association is not a thing apart, but that they are the Association, sharing its responsibilities as well as its benefits, and that each one has a purposeful part in its deliberations.

In short the Chicago meeting promises much for every grain dealer in the state, and in interest and in attendance will undoubtedly be one of the best in the Association's history.



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CHICAGO, ILL., APRIL 15, 1923

FARMERS VS. LABOR

POLITICIANS with socialist leanings, who flatter themselves that they can carry water on both shoulders, have been trying for years to convince farmers and labor unions that their interests are identical, both being victims of "Wall Street," and that their only salvation would be to unite politically. A farm-labor party has even been formed and one United States Senator has been elected on that ticket, Mr. Shipstead of Minnesota.

The farmers in Minnesota who have been led to believe that their interests were common with those of labor, have received a shock, and reverberations of the shock will doubtless be felt pretty generally throughout the radical farm territory. A full crew bill for the railroads was introduced into the Minnesota legislature. Like all full crew laws which have been passed in many states, the bill provided for much unnecessary employment and a pyramiding of the cost of railroad operation without a bit of compensating service or safety for the public. It was simply a union hold-up to provide more jobs and to make railroad operation more difficult in case of a strike. No doubt many farmers approved of the bill.

But now a companion bill has been introduced, called the Full-Crew Farm Bill, which provides practically the same terms for farm laborers as the other did for railroad employees. The bill provides that no one shall engage in any agricultural pursuit within the state of Minnesota without first registering his farm with the secretary of state under a proper classification. On class A

farms, of 200 acres of improved land, the bill requires one farm hand to each 40 acres. If 24 cows are kept, a herdsman is required, who can show two years actual experience in caring for cows. In addition, there must be one milker for every six cows "or fraction thereof." Farmers would have to stop working more than eight hours a day under the bill, and six days a week would rule. Wages would be arrived at by striking an average of the union wages of plumbers, printers, bricklayers, plasterers and carpenters.

This bill will do more to clear up the confusion of mind in the relationship of farmers and unionists than years of argument. When a man's own ox is gored he does not have to be shown the point of the horn that did the damage.

GRAIN FUTURES ACT UPHELD

AS WE go to press word comes from Washington that the Future Trading Act has been upheld by the U. S. Supreme Court. Two years ago a grain Futures act was passed by Congress which attempted to regulate the exchanges through the taxing power. This act was declared unconstitutional by the Supreme Court.

A new act was passed last year which declared that future trading in grain was interstate commerce and gave to the Secretary of Agriculture power to regulate the exchanges, and also compelled admission of co-operative companies which declared dividends on a patronage basis. An injunction against the operation of the Act was granted to the Chicago Board of Trade, suspending its operation until 20 days after the Supreme Court had rendered its decision.

The constitutionality of the Act was attacked by the attorneys of the Board of Trade, but the Supreme Court has decided that the Constitution has not been violated by the Act. The full text of the decision will not be available until April 19, but it is understood that the Act will go into effect upon the expiration of 20 days, or on May 6. Thereafter the grain exchanges will be operated on the rules and regulations prescribed by the Secretary of Agriculture.

EXPORTS

FOR the nine months from July 1, 1922, to March 31, 1923, our grain exports fell off materially compared with the previous year, while Canada's wheat exports increased in proportion. This was to be expected, for Europe's purchasing power has been lower than at any time since the war, and Great Britain is encouraging inter-colonial trade. The really surprising feature of our foreign trade is that we have been able to dispose of as much as we have.

Wheat exports during the nine months period have been 135,372,000 bushels; corn, 78,296,000; rye, 39,001,000; barley, 18,942,000, and oats, 17,395,000. Rye and oats exceeded the year before, but wheat was about 45,000,000 bushels less and corn about 57,000,000 less than in the previous year. Ca-

nadian wheat exports increased from 111,348,000 bushels last year to 180,745,000 this year.

There are three ways by which the grain production can be benefited: Decreasing production of surplus grain and substituting crops that can be consumed in this country; re-establishing the stability of Europe on a commercial basis rather than trying to monkey with its politics; importing more goods from Europe to pay for larger exports, which involves readjustment of the tariff and its attendant unsettling of business. The best bet seems to be to give close attention to what Julius H. Barnes will have to say upon his return from the meeting of the International Chamber of Commerce at Rome, where the commercial rehabilitation of Europe was fully discussed. Mr. Barnes has a grasp upon world conditions, which few possess, and as he is free of any political bias his utterances are worthy of closer attention than those of all the so-called statesmen in Washington, whose vision is clouded with votes.

PRICE STABILIZATION

MANY controversies have arisen over the action of the Price Stabilization Conference at Minneapolis, which endorsed the Gooding Bill, guaranteeing a price of \$1.75 per bushel for No. 1 Dark Northern wheat. Kansas has formally repudiated the vote of its delegates, and hundreds of farmers in other states have taken issue with their representatives.

As we understand it, the issue was drawn on the resolution presented by a majority of the committee endorsing the Gooding Bill, and a minority report, presented by representatives of Iowa, Wisconsin, Nebraska, Michigan and Illinois, which provided:

In lieu of any Government price fixing plan on wheat we recommend that the governor of each of the large wheat states name a committee of three to meet together in May of each year at a common point, where they shall decide upon a minimum price return to wheat growers based on all available figures furnished by the several state departments and the Federal Department of Agriculture. The committee shall then fix a fair price at which the crop can be moved with profit to the producer, and issue notices of the same to associations in other countries asking their aid in its maintenance.

The minority resolution is almost as senseless as that of the majority, but its bad effects would be negative and would merely make us a laughing stock for the world, while the Gooding plan would get us into such a mess that we never would extricate ourselves.

THE CO-OPERATIVE LAW

LEGISLATURES in 21 states have adopted the Co-operative Marketing Bill which the Farm Bureau Federation has fathered; the bill is still pending in four states; and in Indiana and New Jersey it was passed but was vetoed by the Governors. The bill provides an iron-clad contract for co-operative marketing among farmers, with severe penalties for breaking the contract and also for inducing signers to break it. It is

aimed to destroy present grain marketing machinery and to eventually set up a monopoly of grain, controlled by marketing organizations. These organizations are carefully protected; the farmer will be the goat if things go wrong.

The bills as adopted have been variously amended. Ohio, for instance, struck out the penalty clauses, making the measure more or less innocuous. The Illinois legislature has a hearing on April 18, and an attempt will be made to amend the Illinois bill in similar fashion.

The passage of the bills marks the beginning of the last phase in the U. S. Grain Growers spasm. They have alienated the co-operative elevators and have divided the farmers into two hostile camps, i.e., those who have been stung and want to see everyone else in the same boat, and those who prefer to keep some vestige of independence in their own affairs. The bills will everywhere open a breach which will prevent the hoped-for monopoly and will ring the death knell of the monopoly marketing organizations. They may be followed by temporary dislocations of business in various communities, but if grain dealers will sit tight, hold on, and not become panic stricken, they will soon begin to see the reaction against the bills, which will bring a return wave of renewed confidence in the tried and true marketing agencies.

ORIENTAL PROGRESS

CENTURIES pass in the Orient with little sign of change in the customs of its peoples. But in recent years the close contact of Asia and the Occident has made a distinct impression. During the last 20 years there has been a greater development in manufacturing processes in China and Japan than in as many decades preceding. The cotton and milling industries of China illustrate the point. Cotton spinning and weaving up to 20 year ago was a home industry. The entire process was done by hand, and even Chinese labor could not compete with the machinery of the Occident. A group of progressive Chinese capitalists took the matter into their own hands. They encourage the raising of cotton and built modern factories for its processing. Today Chinese cotton goods largely supply the enormous domestic market. A similar experience was witnessed in the case of flour milling, and the many mills of the Shanghai district today are among the most modern and efficient in the world.

And now word comes by way of Vancouver, that the South Manchurian Railway is about to erect a modern 3,250,000-bushel elevator at Dairen, Manchuria. This is the first large bulk elevator in the Orient, and if it initiates a movement in grain handling as revolutionary in scope as has been witnessed in cotton and milling industries, it will be of the utmost importance to the whole grain world. The new elevator will handle beans as well as grain, but it is the inauguration of the new method in the Far East that makes the event of interest, not

the particular commodity handled. Sacked grain and beans have given place to bulk, and once bulk handling is established the trade is on a modern and competitive basis which may have far reaching results.

CAUSES AND RESULTS

A DOZEN Farm Loan acts would not counteract the fever of speculation which raged in the farming districts during the fat years. J. H. Tregoe, executive manager of the National Association of Credit Men, recently stated that Iowa farmers alone spent \$200,000,000 in worthless securities at that time, not including the farm land bought at \$600 per acre. Iowa farm land is far from wasted, but paying interest on \$600 an acre is a difficult matter. It takes courage and unusual balance to keep one's head when the whole world is aflame with war and waste and wealth. Farmers were no more guilty than any other class, but only the farmers have tried to remedy their troubles with legislation. Time, patience and hard work are the only remedies for this condition. Congressional enactments will not more than brush the surface.

Not all farmers spent their profits. Many saved and invested wisely, retired to town and rented their farms. Tenancy is on the increase, a natural consequence of the war and its aftermath. But tenancy is an economic problem that will have to be solved, for it is a retrogression in agricultural development. Material increases in farm loans is bound to increase tenancy rather than help it. Fortunately the great bulk of the farmers realize this and will make no use of their extended credit facilities. A few will do so and come to grief on settling day. Gradually farm and manufactured products will strike a balance. It will take time, but it will come. It will be a long while before anyone can afford to be bearish on the United States.

MINNESOTA IN THE GRAIN BUSINESS

BOTH houses of the Minnesota legislature have passed a bill providing for state owned elevators. The House Bill called for a constitutional amendment vote to permit an elevator to be built at Duluth only. The Senate Bill provided for houses at St. Paul, Minneapolis or Duluth, as the legislature should direct. At present the two bills are in conference. Probably some sort of compromise will be struck and the state be committed to an elevator program. The bills are sponsored by the farmer-labor party which has the upper hand at present.

If Minnesota were in crying need of grain elevators, the state could well afford to build them, even if operated at a slight loss; but such is not the case. It is only occasionally that congestion occurs at either Minneapolis or Duluth. In New York and Louisiana, state elevators were justified because of export necessities, but in Minnesota the issue appears more political than utilitarian. Back of it, no doubt, is the thought that such elevators could be used to advantage by the

wheat pool. If such is the case the wheat pool is disclosing the weakness of its hand early in the game. Any marketing system which depends upon state support is doomed before it handles a bushel of grain. Only by demonstrating its value on economic grounds can a marketing system expect to be permanent, and if the state has to build its equipment it is making a bad start indeed.

CROP PROSPECTS

CONDITION of Winter wheat on April 1 was found by the Department of Agriculture to be 75.2 per cent of normal, indicating a yield of 572,317,000 bushels, compared with 586,204,000 bushels harvested last year, and as against a condition of 78.4 on April 1, 1922. This is close to the Snow estimate, issued a few days previous, and much less than the Nat C. Murray estimate.

Rye condition was 81.8 as against 89 last year and a 10-year average of 88.6. The prospect is for a rye crop of 75,784,000 bushels, compared with 95,497,000 last year, and a crop of 61,675,000 bushels in 1921.

Since the gathering of the data upon which this report was based there has been a continuation of cold weather generally, with little relief from the drought in the region which needed it most. Coupled with the knowledge of subsequent condition, it was natural that the report should have had a bullish influence on the market. In fact it will take some extraordinary growing weather to convince many in the trade that we are not in for a bad wheat and rye year.

RUSSIAN EXPORTS

ACCORDING to a Holland correspondent of the *London Grain, Seed and Oil Reporter*, Russia is exporting a surprising amount of grain considering the famine conditions in the interior of the country. Sales of rye have been made to Germany and Scandinavia of 80,000 tons and 120,000 tons additional might easily be furnished. There are 60,000 to 80,000 tons of barley available and 100,000 tons of sunflower cake and by-products, which are fine animal feed.

These exports come from the Black Sea ports by way of the rivers. Rail facilities from the surplus grain regions to the famine districts are practically absent. From the northern ports, however, to the interior points of greatest need the Russian Relief has practical charge of the railroads and regular and fairly good service is maintained. A sincere effort on the part of Russian officials could probably result in the rehabilitation of the southern roads, but the fact of the matter is that the Government is desperately in need of foreign credit and would rather have America feed its starving people, and derive benefit of grain exports for itself.

No doubt the exports this year will exceed those of last, but compared with the pre-war trade in grain, such exports will be negligible, except as the European buyers will use them in the attempt to cut down the price of Western Hemisphere grain.

EDITORIAL MENTION

The cost of threshing in Canada increased from 10 cents to 15 cents in 1922. Unfortunately receipts do not always keep pace with expenses.

North Dakota proposes to establish a number of recleaning stations for seed wheat. It is hard to get unmixed seed in the Northwest, and pure seed would be a boon to the growers.

The "Eat More Wheat" campaign has a good chance of effective results. Americans eat far less bread than most nations and it is in truth, as the slogan says, the best and cheapest food.

In South Dakota a bill has been passed preventing elevators from selling stored grain. This means that storage tickets will be mighty unpopular with elevator operators, for storage space is at a premium.

Reports of green bug, Hessian fly, Angoumois moth, rosette, and other pests and diseases of grain are becoming so prevalent that it looks as if there would not be enough grain left to feed the insects, to say nothing of us poor mortals.

A Montana mill which sold a farmer 650 bushels of Winter wheat, represented to be Spring wheat seed, had to pay the farmer damages of \$6,153. No doubt many Montana farmers wish that this joke had been played on them.

On April 4, the North Dakota Wheat Growers Association made its second payment on last year's crop handled. This brings the payments up to 80 per cent. Final settlement will be made about July 15. This looks like quite a while to wait for the payment on a cash crop.

Applications for 30 sites for elevators in Montana have been made this year to the Milwaukee Railroad, and in every case applicants have promised to rush constructions so as to be ready for this year's crop. Montana is coming fast in grain production and storage space is far behind.

A system of making rail rates depend on the ability of the shipper to pay rather than upon the cost of the service, is the basis of most of the proposals advanced by the radical group at Washington. As shippers we may applaud the theory, but as business men we know that it couldn't work.

The Canadian Government made a profit of \$210,392 on the operation of its elevator at Port Colborne, Ont. But this does not include the cost of power nor the interest on the \$2,100,000 elevator, nor depreciation on its plant. At 6 per cent the interest would be \$120,000, and when power and depreciation are added there would be little left for the profit side of the ledger. Too many elevators keep books in about the same way

as the Canadian Government, counting their bank balance at the end of the year as profit. When the elevator wears out, there is nothing to replace it and the profits of years change to consistent losses.

Jim McNulty of Minneapolis has quite a reputation as a soothsayer. He predicts \$2 wheat for 1923-24; \$10 hogs by the last of April; \$5 wheat in 1925; and a handsome fair-haired woman for President in 1945. It is all right talking about 1923 and the last of April, but who is going to remember who to vote for in 1945.

The recent report of the Federal Trade Commission, accusing traders at Minneapolis of scalping and dummy buying to raise prices to consumer without benefitting producer, is the basis of a bill in the Minnesota legislature calling for an investigation of such practices. The more light that is let in on grain exchange practices, the cleaner they look.

The railroads have prepared a set of statistics showing that freight rates are no higher in proportion than farm products, compared with 1913 values. In January wheat at \$1.24½ was 40 cents or 48 per cent above the 1913 price, while freight rates (basis Wolsey, S. D., to Minneapolis) was 45 per cent higher. Such statistics are interesting, but they do not mean much to grain shippers.

A. C. Townley was recently interviewed by a reporter for the *Christian Science Monitor*, who quotes him as admitting the failure of North Dakota's program of state-owned industry. Mr. Townley is now out of the Non-partisan League and can afford to criticize. He is busy at present organizing the National Production League, another scheme for extracting money from the farmer.

Railroad service is improving. In January there were 37,668,000,000 net ton-miles of freight moved as against 27,151,000,000 in January 1922. Car-miles per day averaged 25.8 this year, as against 20.4 last year. Much new equipment is being added and extensive repairing is in progress. This does not guarantee against car shortage next fall, but it will insure a large grain movement if the grain is offered.

The Federal Trade Commission is about to institute another inquiry of the grain trade. Under Docket No. 694 it will investigate "alleged unfair method of competition in the buying, selling and distribution of grain involved through the publication of false and misleading statements; refusing to make available telegraph market quotations; boycott of and refusal to buy grain from competitors, etc." The patience of the American public in putting up with these footless expenditures of public money passes understanding.

The certainty of a late spring makes more important than usual the recent report on the land prepared last fall in the three prairie provinces of Canada. Compared with the

previous year, there is a decrease in prepared acreage of 3.67 per cent in Manitoba; 11.84 per cent in Saskatchewan and 33.59 per cent in Alberta; a total decrease of 14.52 per cent, or 2,391,597 acres in the three provinces. There is a mild campaign on in Canada, as there is in our own Northwest, for an increase in flax acreage, so it looks now as though there would be less wheat to dispose of next fall than there was last year.

A movement is under way for the erection of a \$10,000 monument to the memory of James L. Reid, the originator of Reid's Yellow Dent Corn. It is estimated that 250,000 farmers are raising this strain of corn. If all contributed four cents the monument could be raised. It is said that Mr. Reid's widow and daughter are supported by the supervisors of Tazewell County, Ill. If this is true, a better use could be found for that \$10,000 than building a monument.

The railroads of the country have placed orders for 77,000 freight cars since January 1. A desperate effort is being made to improve service to a basis comparable with the high rates. When Congress meets next fall the railroads want to be able to show improvement of service to counteract the attacks they will have to sustain from La Follette, Brookhart, Capper, and others. A favorable showing at that time will go far toward discounting the talk of Government ownership.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

of AMERICAN ELEVATOR AND GRAIN TRADE, published monthly, at Chicago, Ill., for April 1st, 1923.
State of Illinois } ss.
County of Cook }

Before me, a notary public in and for the State and county aforesaid, personally appeared A. J. Mitchell, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the AMERICAN ELEVATOR AND GRAIN TRADE and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher, Mitchell Bros. Pub. Co., 431 South Dearborn St., Chicago, Ill.
Editor, Richard Pride, 2878 N. Clark St., Chicago, Ill.
Managing Editor, H. H. Mitchell, LaGrange, Ill.
Business Manager, A. J. Mitchell, 4820 Kimbark Ave., Chicago, Ill.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the name and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

A. J. Mitchell, 4820 Kimbark Ave., Chicago, Ill.; A. H. Mitchell, 4462 Woodlawn Ave., Chicago, Ill.; Jno. E. Bacon, 4546 Clarendon Ave., Chicago, Ill.; M. B. Mitchell, Ottawa, Ill.; M. W. Mitchell, Washington, D. C.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholders or security holders appear upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is. (This information is required from daily publications only).

A. J. MITCHELL,
(Business Manager.)
Sworn to and subscribed before me this 24th day of March, 1923.
[Seal.] W. F. WARRICK.
(My commission expires May 8th, 1924.)

H. L. HALLIDAY
Cairo

NEWS OF THE TERMINAL MARKETS

W. H. TOBERMAN
St. Louis

FAVORS DAYLIGHT-SAVING

The St. Louis Merchants' Exchange, St. Louis, Mo., recently went on record as favoring daylight saving, which will become effective in the principal cities of the country the last week in April. All the principal grain exchanges will operate under the daylight saving system.

WANT RULE ELIMINATED

A petition was recently signed by very many members of the Kansas City Board of Trade asking abrogation of the "to arrive" rule on grain. Those opposed to the rule claimed it was ineffective, and was helping the interests of the Missouri River markets more than Kansas City.

WICHITA BOARD TO ENLARGE ITS SCOPE

The Wichita Board of Trade of Wichita, Kan., has applied to the Secretary of Agriculture at Washington, D. C., for permission to establish call trading. It is planned to have one-half hour call trading at the opening of the regular markets on other exchanges and one-half hour at the close of the markets.

SHIFTING OF INTERESTS IN CORN

Pope & Eckhardt Company of Chicago, Ill., say in their market letter of April 13:

"The market for corn reflects much shifting of interests among the local talent. Strong bullish sentiment is reflected from western feeding districts. The movement to country stations everywhere, and to the terminals, is naturally small on account of delayed seeding and the urgent pressure to make progress in farm work. Shippers' sales here 55,000 bushels. Seaboard sales 200,000 bushels for export."

MOVEMENT LIGHT AT MILWAUKEE

At the present time the movement this way is very light, which no doubt is caused by light deliveries from farmers, due to spring work; also there is considerable grain being sold into the Southwest for feed purposes, particularly corn and oats. However, as soon as navigation opens up we are inclined to believe that values in this direction will be more in line and are looking forward to a more liberal movement to Milwaukee. We are sure that our buyers are prepared to absorb everything coming and the trade in general looking for better business a little later on.—*E. P. Bacon Company, Milwaukee, Wis. Market Letter of April 13.*

JOHN R. MAUFF SPOKESMAN FOR BOARD

At a recent meeting of the Board of Directors of the Chicago Board of Trade, John R. Mauff, the newly appointed executive vice-president of the Board, was made the official spokesman for the organization. All matters of public interest will hereafter be presented by Mr. Mauff.

President of the Board of Trade, John J. Stream, in making the announcement, said:

"This step was taken as part of the association's plan in establishing a closer relation with all agricultural and allied interests and with the public in general.

"The creation of the office of executive vice-president was for the purpose of permitting greater continuity in the supervision of the association's affairs. The new duties today added to this office carry the plan a step further. Mr. Mauff will cooperate with allied associations, the press, and official bodies in the study of questions of interest.

"The Board of Trade's part in the upbuilding of

Chicago is well known. Its efforts started when Chicago was a village. Thirty thousand persons owe their livelihood to it and 200,000 persons are affected indirectly. Members of the association maintain bank balances of more than \$200,000,000. It is the purpose of the association, in centralizing its public work in one department, to take a still more active part in the development of Chicago."

NEW OFFICERS AT MILWAUKEE

The annual election of officers on the Milwaukee Chamber of Commerce, Milwaukee, Wis., took place April 2, 1923. The following officers were chosen: President, A. R. Taylor; first vice-president, A. R. Templeton; second vice-president, Hugo Stolley; secretary and treasurer, H. A. Plumb.

Directors, A. L. Johnstone, Z. J. Keefe, G. W. Kruse. Board of Arbitration, E. J. Koppelkam, E.



PRESIDENT A. R. TAYLOR, MILWAUKEE

S. Terry. Board of Appeals, J. J. Crandell, E. H. Dadmun, P. P. Donahue. President Taylor has been connected with the grain trade of Milwaukee practically 22 years. He started with the Milwaukee Elevator Company and was associated with the firm of Fagg & Taylor from 1906 to 1916 when he became secretary and vice-president of Taylor & Bournique Company. He has served as a member of the Appeal Board, Board of Arbitration, Board of Directors, and has filled the offices of first and second vice-president of the Chamber of Commerce.

CORN AND OATS RECEIPTS LIGHT

"Receipts of corn at Peoria for some time past have been very light and values have been working considerably higher, following the trend of other markets," says the Mueller Grain Company of Peoria, Ill., in letter of April 13. "In fact, ruling prices here recently have been on a higher basis than some of the other western markets. Arrivals have been taken by feed mills and the largest industry here. While the latter concern has good stocks of corn on hand, they have been buying spot corn so as to secure cars on which they can load their finished products. Daily spot prices have been above a shipping basis for some little time. Empty cars continue scarce throughout the country, and we do not look for any material increase in receipts for some time to come.

"Receipts of oats have been light and this cereal

has also been bringing good prices here. The bulk of them are being sold to go to Southern markets. The demand has been fair."

GOOD DEMAND FOR WHEAT

A good demand continues for Soft Red Winter wheat, with very light receipts, the best demand coming from southern mills.

There is very little corn moving from Indiana stations, due principally to feeding operations and a holding attitude of the farmers. The bulk of our receipts of corn are from Illinois and have been running very light the past few days. We look for some increase in the movement as soon as the spring work is out of the way. Our best demand is for corn carrying favorable southern billing.

There is a good demand from the South for oats, but we find it a rather slow sale to eastern territory. —*McCardle-Black Company, Indianapolis. Market Letter of April 13.*

READY MARKET FOR CORN

Much firmer feeling exists for corn due to the strength shown in western markets. The demand, however, is somewhat smaller than the preceding week.

Stocks of corn here are light and arrivals of desirable grades are finding a ready market at the advance. Driers here are readily absorbing the lower grades and market is well cleaned up. Consignments to this market should prove profitable under existing conditions.

Demand for oats continue to lag and at no time the past week has our market been able to follow the advances registered in western terminals. Stocks of oats are quite liberal and arrivals are more than ample for the requirements of the trade.

The movement of grain to Pittsburgh is normal and very few delays are noticed. The car situation in this territory is not good and nearby states are reporting difficulty in obtaining equipment.—*Harper Grain Company, Pittsburgh, Pa. Market letter of April 14.*

LOOK FOR HIGHER VALUES

Wheat prices have advanced sharply and are 5 cents higher than a week ago. Many in the trade believe that the condition of the new crop and available supplies justify even higher prices. All contract grades of wheat continue to sell at premiums over a delivery basis. Hardly enough wheat consignments are arriving in this market to satisfy the limited demands, and while there may be a little over 2,000,000 bushels of contract wheat in all positions here in Chicago, when the cash grain alone is considered, it could not be profitably delivered on May contracts.

As we have been predicting, cash corn has advanced and is now selling at the highest prices in about two years. Farmers are busy with spring work and not making any new contracts, so that practically no corn is being offered to arrive. Exporters are taking corn from day to day and the domestic demand has also shown improvement. Prices for the week are a full 5 to 6 cents higher, with the No. 2 and No. 3 grades bringing premiums over the May; therefore, we do not expect large deliveries on May contracts. We look for a continued light movement for the next 30 days and still believe prices will be on the upward trend.

The oats market has shown strength during the past week and prices have advanced 2½ to 2½ cents. Cold wet weather has delayed seeding two to three weeks, but work is now on in full swing and good progress is being made. No export sales of oats are

reported, and the eastern domestic demand is narrow. The visible supply (23,000,000 bushels or 40,000,000 less than a year ago) will probably be needed to bridge over until the new crop, which promises to be late, is harvested. We continue to believe in higher values for oats.—*Lamson Bros. & Co., Chicago, Ill. Market Letter of April 13.*

EAST OF BUFFALO DEMAND SLOW

There is very little to be said about the demand for wheat. Just at the present time there is very little wheat coming in; the local mills are buying some Soft Red Winter wheat and there is some demand for White wheat.

Receipts of corn and oats are exceedingly light, but ample enough to take care of the demand. The domestic demand east of Buffalo is quite slow. Most of the current receipts are being taken up by the local mills in the Buffalo market.

The late opening of navigation, which is not expected until after the first of May, due to heavy ice in the lake, will no doubt cause our cash prices to keep steady to strong.—*McConnell Grain Corporation, Buffalo, N. Y. Market Letter of April 14.*

DEMAND EXCELLENT FOR ALL ARRIVALS

The movement of all grains to this market is extremely light with much of the little arriving, being on sales to arrive. Indications point to probable light receipts of all kinds for some weeks. There is reported to be a moderate quantity of wheat at a few Indiana stations that probably will move to market in the near future, but our corn movement is confined largely to Illinois shipments. Oats receipts like wheat and corn are very light, and apparently the supply is not likely to increase. The demand for all arrivals is excellent and we feel that in view of that probability, our cash market will continue to give a mighty good account of itself as compared with other terminals.—*Bert A. Boyd Grain Company, Indianapolis, Ind. Market Letter of April 13.*

RADIOPHONE STATION WDAP UNDERGOING NOTEWORTHY IMPROVEMENTS

The Radio Committee of the Chicago Board of Trade, Chicago, Ill., makes the following announcement regarding its Radio Station located at the Drake Hotel:

Believing that our members as well as friends and customers of our members are interested in what pertains to this broadcasting enterprise, we are glad to set forth the program now being worked out.

The station has acquired considerably more space than it had originally and all of the machinery and apparatus used in connection with the broadcasting service are now being installed in one large room. Every piece of apparatus will bear a card indicating exactly what its function is. This will probably be entirely encased in glass so that no undesired noises may go out through the microphone, but there will be a runway entirely around the set so that visitors will have free and ready access to the operating room and be able to read for themselves what now has to be described by some attendant. This installation is at the present time more than half completed.

Added to this will be a very novel and extraordinary antenna tower. We have had great difficulty in obtaining the permission of the building department of our city to install this tower, but that has now been obtained and the material is now in the process of manufacture. It will be a single tower running one hundred and thirty-five feet in the air and looking very much like a gigantic mushroom. Considering the modest antenna we now have, we think the station is functioning very effectively, but with this new tower and a particular wave length designed for this station, we feel satisfied that when the entire outfit is completed according to the present plans, we will be able to reach thousands of miles by night and several hundred miles in the day during the summer time, which is the greatest problem now before the radio engineers.

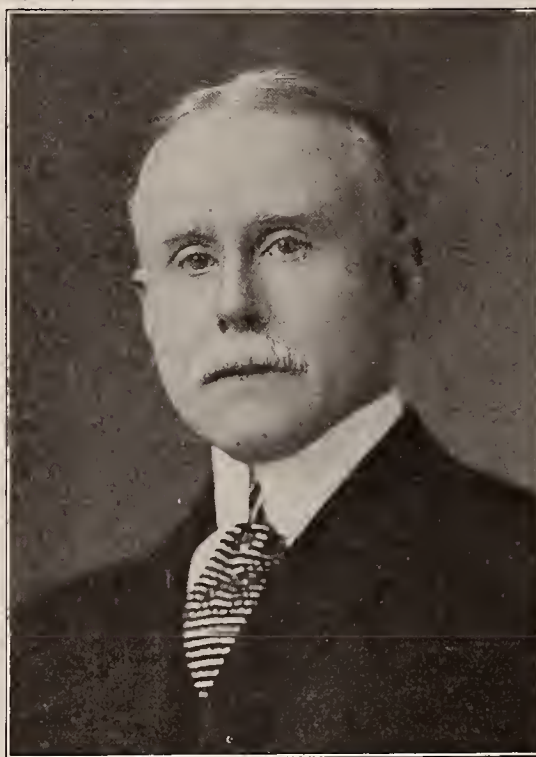
In radio terms we ask our friends to "stand by" with as much patience as possible until we burst into the air with new operating conditions and bene-

ficial ruling from the Government regarding wave length and broadcasting periods. It is very gratifying to be able to say that we have the heartiest co-operation in Washington and if such a thing is possible, WDAP will stand in a preferred class because its highest aim is to benefit the agricultural and livestock interests. The entertainment feature is secondary, but at the same time vital as we wish to disseminate some of the human element which is so predominant among the members of our association in their daily business contact.

Again in radio language "This is WDAP of the Chicago Board of Trade signing off."

DEATH REMOVES CALEB H. CANBY, SR.

In the death of Caleb H. Canby, head of C. H. Canby & Co. of Chicago, Ill., the Chicago Board of Trade loses one of its staunch supporters and a man who lent his earnest aid in keeping the Board open during the war and functioning to the benefit of all departments of the great grain industry. Mr. Canby had been a member of the Board since 1890 and served as its president from 1914 to 1916 during the critical periods before our entrance into



THE LATE CALEB H. CANBY, SR.

the war. His death occurred March 13 of pneumonia and his funeral was held from his late residence at 4821 Ellis avenue.

Mr. Canby was born in Massillon, Ohio, in 1856. After finishing the course in the public schools he entered business on the New York Produce Exchange in 1883 and a few years later removed to Chicago, where he had been engaged in the grain and stock business since that time. Besides membership in the Chicago Board of Trade he held memberships in the Chicago Stock Exchange and New York Stock Exchange, but in 1915 gave up his stock brokerage business and confined himself solely to dealing in grain.

Mr. Canby was a member of the South Shore Country Club, and the Chicago Club. He is survived by four sons, Caleb H. Jr., Joseph L., Lloyd, and Stuart M. Canby and one daughter, Mrs. W. B. Kerr of Syracuse, N. Y.

NEW OFFICERS FOR THE MONTREAL EXCHANGE

The officers of the Montreal Corn Exchange of Montreal, Quebec, Can., recently elected at the annual meeting are as follows: H. D. Strachan, president; T. H. Reeves, treasurer; A. G. Burton, A. E. Clara, F. A. Heywood, J. A. Marshall, W. J. McAuley, N. S. Stuart and H. Quintal, Board of Management; W. B. Bradshaw, A. E. Clare, J. A. Marshall and J. B. Trempe, Transportation Committee.

Greater facilities in the port of Montreal for the handling of grain shipments, was the evidence of Jas. A. Jamieson, specialist in elevator and grain

carrying problems, given before the Royal Commission which has been investigating into alleged combine of Canadian lake vessel men. The cause of congestion was that Montreal harbor had been developed along the lines of catering to ocean liners and the harbor was badly equipped for handling small cargo steamers. The remedy for congestion, was to greatly increase the capacity of terminal loading elevators, especially in the lower St. Lawrence at Montreal or Quebec.

IMPROVED DEMAND FOR SOFT WINTER WHEAT

There has been a little improvement in the local milling demand for Soft Winter wheat here recently, but the demand has not been broad for any varieties of wheat as the mills complain that the flour demand is not normal and that the recent advance has stopped what little flour demand there had been.

The movement of corn from the country has ceased very sharply and spot prices in this market are the highest in over two years. The feeding demand from the territory tributary to Buffalo has been better this winter than for several years and Eastern mills advise that dairying is on a profitable basis again and look for a continued good demand for grain for feed.

Just at the present time the eastern trade have fairly good stocks, having bought quite freely during the winter when embargoes were in effect and since the advance in grain prices they are inclined to let their stocks run down pretty well before replenishing and as a consequence the demand at present is rather slow. This on the other hand will mean an increased demand a little later on and there is every indication that this market will enjoy better than a normal demand during the summer months.—*J. G. McKillen, Inc., Buffalo, N. Y. Market letter of April 14.*

WHAT IS INFLATION?

Much is written on the subject of inflation, but this can be expressed in a few words; namely, inflation is the result of confidence encouraged by cheap money. The investing public are alert to a situation before it actually happens, and, therefore, seek an opportunity for investment. These investments encourage others who do not have the foresight of their brothers. The result is inflation. This condition appears to have developed in practically all commodities with the exception of grains, which is really the backbone of our country. The most important reason for lack of support to the markets has been the continued nagging of agitators and legislators, who do not analyze the situation but believe that their efforts and plans are for the best. They are egotistical enough to assume that the present marketing of grains is obsolete. Only until recently has the affect of this agitation been relieved and immediately the outside trade broadened to such an extent that decidedly strong markets are with us. A continuation of this class of trade will benefit the producers far more than could any monopolistic law that ultimately would bring havoc among the grain producers.

Crop news has been very unfavorable. Rains are badly needed and while some moisture has been accounted for in the Southwest and the crop experts anticipate a decided decrease in the final yield, cold weather throughout the Northwest is delaying seeding and the time is getting short. This condition is being reflected in the distant futures, which apparently overcomes any pressure that may appear.

The 80 cent mark for corn has been reached and passed, while at the same time the situation remains unchanged. Receipts here are small, other markets from two to three cents higher from certain points. Export demand has been of a spasmodic nature although a fair amount has been put through. Cash demand is fair with basis relatively unchanged.

Oat seeding, while delayed, is rapidly approaching completion in certain sections of Illinois. The demand is strong although buyers are not over-anxious, which indicates that present stock are sufficiently large to draw from. From present indications acreage will show a substantial increase.—*The Updike Grain Company, Chicago, Ill. Market Letter of April 13.*

UPWARD MOVEMENT OF GRAINS

All grains have been under the influence of the largest speculative demand within a period of more than a year. Former high prices of the deferred deliveries have been surpassed by a wide margin and of the old crop months May corn has advanced to much better prices with a rapidity that in view of the large local stocks is really surprising. Shorts of all grains have shown decidedly more anxiety than have longs and if the latter have been inclined to relinquish their holdings they have been able to do so with ease at an advancing scale of prices. Sentiment in general has turned to the constructive side of the grain markets in a most decisive manner and so long as general conditions remain favorable to the buyer prospects for higher grain prices are most encouraging. Pressure of grain from the producer is a negligible factor and in the case of wheat and oats it will likely remain so until another crop is garnered. Even rapidly advancing corn prices have not elicited any perceptible increase in country offerings.—*Rosenbaum Grain Corporation, Chicago, Ill., from Market Letter of April 13.*

CHANGES IN MEMBERSHIP

Chicago.—The following have been admitted to membership on the Board of Trade: Howard E. Colgan, Mark C. Losch, John B. Stouten, Ernest H. Wichelman, Thad L. Hoffman, Paul Van Leunen, Louis Dreyfus, Charles Louis Dreyfus, and Edmund C. Coultry. The memberships of the following have been transferred: Davis G. Owen, W. S. Humphrey, F. F. Bullen, Wm. G. Dilts, P. P. Donahue, W. A. Daniel, Edward Tilden, Estate of Jno. A. Costello and William B. Anderson. George H. Beazell has been suspended. Reported by Secretary J. J. Fones.

Cincinnati.—A. C. Gale & Co., have been admitted to membership in the Grain & Hay Exchange. Reported by Executive-Secretary D. J. Schuh.

Duluth.—Howard Kellogg was recently elected to membership on the Board of Trade; Spencer Kellogg has withdrawn his membership in the exchange. Reported by Secretary Charles F. MacDonald.

Milwaukee.—Lawrence H. Teweles has been elected to membership in the Chamber of Commerce and the membership of Arthur Teweles has been transferred. Reported by Secretary Harry A. Plumb.

TERMINAL NOTES

Lamborn, Hutchings & Co. have succeeded Lamborn & Co. on the New York Produce Exchange. Offices are at No. 7 Wall street.

Geo. E. Booth, member of the firm of Lamson Bros. & Co., of Chicago, returned home April 5 from a vacation spent in Florida.

E. L. Love, formerly with the Fuller Grain Company of Kansas City, Mo., has become connected with the Uhlmann Grain Company.

George E. Marcy, president of the Armour Grain Company of Chicago, Ill., was a recent visitor at the Buffalo offices of the company.

E. Ralph Harris, of the grain brokerage firm of W. E. Harris & Co., Baltimore, Md., was recently elected chairman of the Traffic Club of Baltimore.

B. H. Hanley, recently associated with the grain business at St. Joseph, Mo., has become connected with the Carlisle-Burns Grain Company of Omaha, Neb.

The Quaker Oats Company of Chicago, Ill., capitalized at \$50,000,000 has been admitted to do business in Texas. F. E. Moran of Dallas is state agent.

The announcement is made that the hay and grain firm of Austen Bros., with offices in the Wabash Building, Pittsburgh, Pa., has retired from business.

The many friends of H. C. Gamage of the Moore-Seaver Grain Company of Kansas City, Mo., will be glad to know that he has about recovered from his recent illness.

G. A. Beaulieu, formerly of the firm of Byrne & Beaulieu of Montreal, which dissolved partnership February 1, has been operating since that time in the grain brokerage business on his

own account in room 237 Board of Trade Building. He maintains private wires to Toronto, Boston, New York, Buffalo, Chicago, Duluth, Winnipeg and other leading markets.

James Richardson & Sons, Ltd., of Winnipeg, Man., are now occupying the entire tenth floor of the Grain Exchange Building to accommodate their growing business.

R. H. Loomis, formerly manager of the commission department of the Maney Grain Company of Omaha, Neb., has become connected with the Nebraska Power Company.

It is announced that J. Marshall, formerly manager of the Montreal office of the Western Canada Flour Mills Company, Ltd., will engage in the grain brokerage business in Montreal.

J. C. Shaffer & Co., grain merchants of Chicago, Ill., made the first new wheat contract of the season late in March through an order with a Peoria firm for 10,000 bushels for shipment by July 20.

Edwin M. Wilcox, assistant manager of the Minneapolis office of the Rosenbaum Grain Corporation of Chicago, Ill., has arranged to take charge of an Iowa office for Lamson Bros. & Co., of Chicago.

The Collard-Meyer Company, Inc., of Buffalo, N. Y., has been incorporated with a capital of \$10,000 to deal in grains, cereals, etc. The incorporators are E. B. Collard, C. J. Meyer, and William C. White.

Samuel P. Arnot, for years associated with the grain trade of Chicago and the west under the name of Arnot & Co., became connected with A. O. Slaughter & Co., of Chicago on April 1.

H. H. Savage, who has been manager of the St. Joseph office of the Marshall Hall Grain Company of St. Louis, Mo., for several years past has become connected with Wallingford Bros., of Kansas City, Mo.

Allen Logan will head the Kansas City Grain Club, a social organization made up from the Kansas City Board of Trade, the coming year. B. C. Christopher, Jr., is vice-president and W. W. Fuller, secretary.

The Mytinger Grain Company of Wichita Falls, Texas, has been succeeded by the Mytinger Milling & Grain Company. The new firm will build and operate a mill for the manufacture of poultry and stock feeds.

A. Snow Woodworth of Minneapolis, Minn., and a prominent member of the grain trade of the Northwest has been nominated to succeed F. B. Wells as director of the Chamber of Commerce of the United States.

The Quaker Oats Company of Chicago, Ill., and branches is now being represented in Pittsburgh territory with headquarters in Pittsburgh by W. R. Rechsteiner, formerly with the Warwick Company of Massillon, Ohio.

Julien Scott, who has been connected with the coarse grain department of the Terminal Elevators at Kansas City, Mo., is now manager of the merchandising department of the Hipple Grain Company of Kansas City.

C. M. Martin, of Detroit, Mich., has been appointed assistant to E. E. Huntley, manager for the J. Rosenbaum Grain Corporation at Omaha, Neb. He takes the place of J. L. Frankel who has gone to the Chicago office.

J. H. Norris, who has represented J. C. Shaffer & Co. of Chicago, at Hoopston, Ill., has been transferred to the home office where he is connected with the future trading department. Edward Goldesberry has taken his place at the Hoopston office.

The Froedtert Grain & Malting Company of Milwaukee, Wis., has given the name "Calumet" to its grain elevator located on the joint tracks of the Milwaukee & St. Paul and Chicago & Northwestern Railroad Company at Thirty-third avenue and Burnham street, Milwaukee.

H. C. Carson & Co., one of the largest cash grain houses at Detroit, Mich., announce their retirement from business effective as soon as open accounts and contracts are closed. H. C. Carson has entered the real estate field in Detroit, in which he has always been considerably interested. H.

E. Botsford has purchased the business of the Wells Spring Company, manufacturers of coil wire springs for the automotive and upholstery trade, and has assumed the office of president and general manager of the company.

W. A. Hinchman, formerly with the Kemper Grain Company of Kansas City, Mo., recently purchased the Board of Trade membership of Wm. Young of the defunct firm of Dilts & Morgan for \$8,000 including the transfer fee of \$500. This was \$2,000 less than the last sale reported in the fall.

The facilities at the Western Maryland Railway Company's elevator at Baltimore, Md., are being improved by the construction of commodious quarters for the grain weighers and grain inspectors at the plant. New quarters are also being arranged for superintendent J. A. Peterson's office and his clerical staff.

The Illinois Hotel at Bloomington, Ill., was the scene of a gathering recently of managers of Illinois offices of Bartlett Frazier Co., of Chicago. Following an excellent dinner a short program was carried out in which interesting talks were given by those present. About 15 local managers were in attendance.

William H. Hayward, who for the past year has been in charge of the flour and grain department of the Commercial Union of America, Inc., at New York, N. Y., resigned the position April 1 and returned to his former home in Baltimore, where he has engaged in the grain brokerage and forwarding business as Hayward & Co.

Wallingford Bros., of Wichita, Kan., who have maintained an office at Kansas City, Mo., for some time past has purchased the grain business of the E. E. Roahen Grain Company of Kansas City. Since the death of E. E. Roahen early in March this business has been conducted by a brother of the deceased, K. F. Roahen of Wenatchee, Wash.

The president of the Philadelphia Commercial Exchange, Philadelphia, Pa., recently appointed a committee consisting of W. B. Stites, D. J. Murphy, D. H. White and Edward Rice, Jr., to investigate the grain elevator facilities of Norfolk, Va., and secure information for use in connection with the erection of a new grain elevator at Port Richmond by the Philadelphia & Reading Railroad Company.

The Bunge-North American Grain Corporation has been formed at New York, N. Y., to conduct a general domestic and foreign grain business. Its organization is due to the withdrawal of the Bunge interests, a Belgian concern, from P. N. Gray & Co., of New York. Carlos Falk, recently president of this firm, will be president of the new company while Robert Staub also of the Gray firm will be vice-president.

The Heinmiller Grain Company of Indianapolis, Ind., has closed its office. The business was established at Indianapolis several years ago by F. G. Heinmiller who gained his experience in the grain business with W. W. Alder at Lafayette. When Mr. Alder removed to Buffalo, N. Y., Mr. Heinmiller took over the Lafayette office and later went to Indianapolis. Mr. Heinmiller has announced no plans for the future.

The Rogers Grain Company of Chicago will move on May 1 from the present location in the Postal Telegraph Building into more spacious quarters in the New Webster Building. The increasing business of the past year has demanded larger offices and those are now secured. The Rogers Grain Company is the oldest grain commission house in Chicago having been established by the late H. W. Rogers in 1861.

The Davis-Nolan-Merrill Grain Company of Kansas City, Mo., was recently incorporated with George H. Davis, president; N. H. Nolan, vice-president; Harold A. Merrill, treasurer; M. Gudelfinger, secretary. Capital stock is \$400,000. The new company absorbed the Ernst Davis Grain Company and also took over the lease of the Rosenbaum Grain Corporation on the Terminal Elevator. It will do a general grain business.

A number of changes has been made in the United Grain Company of Omaha, Neb., due to the death of John B. Swearingen, former president

who died recently. Mrs. J. B. Swearingen has been elected president of the company; L. E. Conklin, vice-president; and Albert Hedelund, secretary and treasurer. Mr. Hedelund has been connected with the business since its establishment by the late John B. Swearingen in 1909 and Mr. Conklin joined the firm in 1917.

E. F. Huber, who for over eight years past has been associated with the McCaull-Dinsmore Com-

pany of Minneapolis, Minn., as private secretary, correspondent and stenographer, severed relations with that firm recently to go with Louis N. Ritten of Minneapolis. His duties will be similar to those filled with the former firm and in addition he will act as traveling representative. Mr. Huber will also continue to act as chairman of the Membership Committee of the Grain Dealers National Association.

TRADE NOTES

The Sidney Grain Machinery Company of Sidney, Ohio, reports a good inquiry from the grain industry for the Sidney line of machines with bright outlook for the spring business.

The Minnesota House of Representatives recently, by a vote of 84 to 34, passed a bill providing for the establishment and operation of a state owned elevator at Duluth. No limit is named in the bill as to the amount of bonds that may be issued to finance the project.

The M. A. Long Company of Baltimore, Md., was awarded the contract on April 11 for building the new 4,000,000-bushel Baltimore & Ohio Railroad Company grain elevator at Baltimore for which the John S. Metcalf Company are the designers and L. A. Stinson, consulting engineer.

The many friends of L. A. Stinson, head of the L. A. Stinson Company of Chicago, engineers and general contractors of elevators, mills and warehouses, will be glad to learn that he is about fully recovered from his recent illness that confined him to his home at Oak Park during the past two months. Mr. Stinson is now in Baltimore, Md., looking after his duties as consulting engineer on the new Baltimore & Ohio Railroad Company elevator designed by John S. Metcalf Company.

The Nordyke & Marmon Company, of Indianapolis, Ind., leading mill builders and manufacturers of grain elevator machinery, will shortly celebrate their seventy-fifth anniversary. This old established house is run under the management of Walter Marmon, president, and Howard Marmon, vice-president. Some years ago the company began the manufacture of automobiles in connection with its lines of mill and elevator machinery and the Marmon car is now known as one of the highest grade cars on the market.

The Mill and Elevator Fieldmen's Association held its sixteenth annual meeting at Hotel Sherman, Chicago, Ill., March 13, 14, 15 and 16. Over 80 members were present. Interesting papers and discussions covering mill and elevator insurance filled the four days convention, together with visits to the Underwriters Laboratories. One of the interesting features of the meeting was an address by M. A. Reynolds, secretary of the Millers National Insurance Company of Chicago. F. F. Burroughs was elected president of the organization; H. B. Carson, vice-president; C. Lee, secretary; and C. D. Kellinberger, treasurer.

When the Hess Warming & Ventilating Company of Chicago, Ill., was awarded the contract for the grain drier for the new 4,000,000-bushel elevator to be built by the Baltimore & Ohio Railroad Company at Baltimore, Md., it meant that the Hess drying service, commenced in 1905, would be continued. At that date the first Hess Drier was built at the elevator. In 1916 the Hess Drier was specified on Elevator "B," and the late order for the new house demonstrates the standing of Hess Drying with the B. & O. Company. In their advertisement in this issue the Hess Warming & Ventilating Company illustrate the old elevators pointing out by dates 1905, 1916 and 1923, the line of succession of the Hess machines. The advertisement is headed "A Song Without Words." It might be also termed a symphony where the *motif* of good drying weaves like a single thread of harmony through the 18

years' movement and altogether of most satisfactory quality. At any rate the "Song Without Words" stands as a memorable achievement in the history of grain drying.

The Polk-Genung-Polk Company of Fort Branch, Ind., have been awarded four contracts for Polk System concrete grain elevators. One for a 100,000 bushel capacity is to be an addition to the Igleheart Bros.' storage at Evansville, Ind. Another for a four tank elevator of 30,000 bushels' capacity will be built for Sartor & Clarke at Oaktown, Ind. For the F. J. Townsley Elevator Company at Emison, Ind., they will build a five-bin, elevator of 26,000 bushels' capacity. The fourth contract calls for a 10,000-bushel, three-bin elevator

grand jollification by 1,600 workers of the Morse Industries was given on the evening of March 3, at the club house at which the greatest enthusiasm and good will prevailed. The four stories were filled from the ground floor to the top. Every one was out to greet their friends and associates, and they brought their wives, children or sweethearts to have a good time. Everywhere, greeting old friends and their families with reminiscence and story was F. L. Morse with the same tireless energy and geniality with which he has built the Morse Industries in less than 20 years, from an idea or dream to one of the most successful of the 900 largest plants in the United States. A genial spirit of co-operation among the employes has been brought about by these gatherings and success has continuously attended their social, nursing and child welfare work. The activities that reach out and draw into being, all the several ideas found among the employes, provide fields suitable to the inclinations and likings of all, to the baseball player and fan, as well as to those who prefer, band music, singing, athletics, boxing, cards, chess, checkers and dominoes.

INCREASED CAPACITY FOR IRON WORKS

The accompanying illustration shows the Lake View Iron Works, located at 1226-1236 School street, Chicago, Ill., owned by Blaylock & Knapp, fabricators of all classes of steel and iron. The firm was incorporated in 1919 to specialize in steel for



PLANT OF BLAYLOCK & KNAPP, CHICAGO, ILL.

for the Wabash Grain Company at Westphalia, Ind. These houses will all be finished in time for the coming wheat crop.

From time to time the Weller Manufacturing Company, of Chicago, Ill., publishes what might be termed condensed folders for the busy mill and elevator owner and operator. They comprise some branch of the Weller company's specialties or machines and offer at a glance the full line in an attractive and brief manner. A new folder just received embraces the Weller Spiral Conveyor, Standard Steel Elevator Buckets, Bucket Elevators and Bucket Conveyors, Rotary Screens, Reciprocating Screens, Chain and Sprockets, Self Propelling Trippers, and Belt Conveyor Rolls. All these are illustrated with outstanding half tones and there is also enumerated every article which the company makes, while the rear cover gives a handsome birds-eye view of the Weller plant. It is a busy man's folder and the Weller Manufacturing Company will be glad to place one in the elevator office if it has not been already received.

A recent issue of the *Ithaca Journal News* of Ithaca, N. Y., devoted two columns to the story of the progress of the Morse Industries Association and how they were developing their activities, using the club house, a building 90x150 feet four stories high, built by the Morse Chain Company and turned over to the Morse Industries for their exclusive use, and controlled by a board of directors elected entirely by and from the employes. A

grain elevator construction work. J. S. Blaylock is president of the company and H. S. Knapp is secretary and treasurer. Both are experienced engineers and Mr. Blaylock has charge of the manufacturing end at the works, while Mr. Knapp presides over the office and drafting rooms in the Monadnock Block at 53 West Jackson boulevard.

The company has again made plans to increase their shop capacity on account of continued increase in business. The total area now occupied amounts to 14,315 square feet. They are at present constructing, under the direction of L. A. Stinson Company, engineers, the steel dock gallery for the Illinois Central Railroad Elevator "A" at South Water street and the Chicago River, at Chicago. The firm has built the steel work in many of the large elevators of the country and during the past winter considerable work has been turned out for coal handling plants in addition to their grain elevator business.

EARWORM AND THE CORN CROP

An annual loss of over \$40,000,000 to the corn crop of the United States is caused by the corn earworm. This is an average of 2 per cent for the entire acreage, but the loss is considerably higher in some sections, especially in the Southern States, making the corn earworm of particular importance in this region.

Every corn grower is familiar with the corn ear-

worm, but few realize the full extent of the loss it occasions to the field-corn crop of this country, which no doubt is somewhat responsible for the apparent unconcern with which it is generally regarded. The corn earworm also works on cotton, where it is known as the bullworm, on tobacco, and on early tomatoes, vetch, and a variety of other plants.

Each grower of corn, according to the United States Department of Agriculture, with little extra cost or effort, may reduce his loss from earworm ravages by at least one-half through cultural practices alone. If a variety of corn well suited to local conditions, but having a long, tight husk, is selected for planting, the number of worms able to reach the kernels of the ear through the silk channel will be considerably reduced. If this variety is planted so as to have it silk at the most favorable time—that is, when the moths which lay the eggs, and prefer to lay them on the silk, are the least abundant—the subsequent damage will be less.

Spraying or dusting of the whole corn plant on a large scale is costly and ineffective. A fair degree of control may be obtained by dusting the silks with a mixture of half arsenate of lead and half finely ground sulphur, but this is also expensive and impractical, except for market gardeners growing sweet corn or for those specially desiring corn for seed or for show purposes.

OVER-PASTURING INJURES WHEAT

Much wheat is likely to be injured this spring by over-pasturing if past experience may be taken as a guide, says a recent bulletin of the Southwestern Wheat Improvement Association. A good growth of wheat makes excellent pasture, as every stockman knows, and when feed is scarce will greatly reduce the cost of keeping a herd until grass is available. But the effect on the wheat should also be considered.

Many farmers claim that pasturing does no injury and actual gains in yield have been observed in some cases. It is generally believed, however, that pasturing is beneficial if it is followed by a wet season in which the wheat makes a rank growth and lodges. On the other hand, experiments at various stations have shown no gain in yield as a result of pasturing, and in most cases a loss of from one to three bushels per acre. It is generally recognized that heavy pasturing in any season is injurious and especially so if pastured until late in the spring or when the ground is wet.

The greatest danger at the present time is the tendency to pasture too heavily, thereby leaving very little vegetation to protect the soil. Soil blowing is likely to be increased and the wheat will not recover quickly in the spring. Slow growth, late maturity, damage from hot winds and drouth and low yields may be the result. It will generally pay to feed more and pasture less, and remove the cattle entirely when the first warm days of spring arrive. Those farmers who provide themselves with silage, hay, roughage or other feed usually find when the wheat crop is threshed that the better yields more than pay for the extra cost of feed.

NEW ORLEANS EXPANDS PORT FACILITIES

The Board of Commissioners of the Port of New Orleans has issued invitations for the formal opening of the Inner Harbor-Navigation Canal which connects the Mississippi River and Lake Pontchartrain. The ceremonies will take place on May 5 and will mark the realization of the first step in a program which will add immeasurably to the importance of New Orleans as an ocean port.

The canal was built at a cost of \$20,000,000, but it is well worth it as it is a part of the intra-coastal system of canals, and is a beginning of a canal to the sea which will be considerably shorter than the present route. Incidentally it will open a large area for industrial and shipping purposes that is now useless.

At the river end of the canal is a lock 640 feet long, 75 feet wide and with a depth at low water

in the Mississippi of 31½ feet. This will accommodate large ocean steamers which can load or unload full cargoes in the new industrial area. It will give an impetus to New Orleans activities which will be of tremendous advantage to the port.

ARGENTINE PROSPECTS BRIGHT

Consul General W. H. Robertson of Argentina recently sent the official estimates of the Argentine crops to the Department of Commerce, with comment which indicated that that country was expecting a prosperous year. The production of wheat is estimated at 5,281,719 metric tons, or 193,680,635 bushels; linseed, 1,175,575 tons; oats, 793,484; barley 180,171; and rye, 64,197 tons.

The banking house of Ernesto Tornquist & Cia., a recognized authority, estimates the exportable surplus of wheat at 3,200,000 metric tons, which is equivalent to 117,344,000 bushels. This is 11,701,544 bushels more than the estimated exportable surplus of last year, but 20,307,589 bushels less than the amount actually exported during the calendar year 1922. The trade does not appear to be worried about the situation in Europe and there appears to be a general belief that Argentina will not have much difficulty in disposing of its surplus wheat, regardless of what happens in Europe.

Although this year's wheat crop is not a record one as had been expected, it is an unusually good one. Some pessimistic comments have been made regarding the damage done to wheat in the northern part of the Republic by frost, excessive rains and other weather conditions, but this damage has been compensated for in large part, if not entirely, by the excellent conditions in the southern part of the Province of Buenos Aires. Also, even in the north, there has been no serious crop failure in any single zone, as often happens in this country, so that the total production remains large in spite of widespread partial damage in some regions.

The large production is due to the fact that the area that was sown to wheat this season amounted to 16,080,774 acres, as compared with 13,947,120 acres last season. The low prices now being paid for cattle had a good deal to do with the sowing of this increased acreage, as did the fact that beneficial rains fell in the wheat zones at just the right intervals and in the right quantities during the plowing season from June to September to tempt agriculturists to extend the areas they had originally intended to plant under wheat.

Of the 21,491,480 bushels of wheat exported during the first six weeks of this year, 8,048,368 bushels were consigned "to order," 8,858,335 went to the Continent, 2,327,812 bushels to Brazil, and 1,660,087 to the United Kingdom.

PLANS FOR INTERNATIONAL GRAIN AND HAY SHOW

Farm experts from 12 states and Canada meeting with Chicago grain men early this month completed plans for the International Grain and Hay show for which the Chicago Board of Trade again contributed \$10,000 in cash prizes. This is the fifth year of the Board's big premium list for farmers growing the best grain and forage crops.

At a dinner given by the Board at the Union League Club, speakers declared practically the entire agricultural world will take part in this year's show, held with the International Livestock Exposition. The 1922 entry record of 4,039 samples will be shattered. George S. Bridge, chairman of the Board's Grain and Hay Show Committee, is touring the world, interesting foreign nations. Some of these are expected to compete.

Twenty-two representatives of state farm colleges submitted reports. Speakers included H. A. Rumsey, as personal representative of President John J. Stream, James A. Murray, A. V. Booth, Chicago grain men, and Prof. G. I. Christie, Purdue University, superintendent of the show, Prof. J. F. Cox, Michigan Agricultural College, and Dr. W. L. Burlison, University of Illinois. George E. Booth, Chicago grain man, presided.

The exposition, speakers declared, has become

the strongest factor ever injected into the better crops movement. A rising tide of farm education is sweeping America, and the present generation of farm boys will comprise a new generation of "quality and quantity" farmers. There are now a half million members of boys and girls farm clubs. Most of them, speakers declared, know more about scientific agriculture than the average farmer of a comparatively short time ago. The conference decided to greatly increase the number of prizes for boys and girls at this year's show. Prof. Christie said: "We purpose to attract farm boys and girls throughout the entire nation. And as a result the entire nation will benefit in a few years."

In corn judging the East and West hereafter will be divided by the Illinois-Indiana line. A vigorous drive will be made to develop new types of corn superior to any yet produced. The conference also voted to establish new classes for southern varieties of corn at this year's exposition.

WINTER GRAIN SET BACK BY COLD

Winter grains have deteriorated somewhat during the latter half of March according to the semi-monthly crop notes of the United States Department of Agriculture. Long continued drought in some sections with cold weather the last two weeks have retarded growth and both wheat and rye are generally backward. Freezing and thawing with little or no snow cover has been common in large areas of the wheat belt and has undoubtedly done injury, the extent of which cannot yet be estimated. The present condition is decidedly unfavorable though susceptible of considerable improvement with favorable weather conditions from now on.

Seeding of oats has continued in southern areas but has been generally retarded by unfavorable weather conditions. Soil has been cold and wet in many sections and unfavorable for seed germination. The seeding of barley is mostly awaiting warmer weather.

The planting of corn continues in the South. The plant in Southeastern and Southwestern States has been damaged by cold and freezing and replanting is general. Acreage outlook doubtful at present and likely to be reduced by scarcity of farm labor. Preparation of ground in more northern areas is making progress but has been delayed by cold and wet soil. Preparation of land for rice has been finished. Sowing has been retarded by rain in some areas.

Livestock are in good condition as a rule in all sections. Lambing has progressed favorably as a rule. The mortality has been variable though on the whole the losses are small. In some states of the Middle West spring pigs have suffered severe losses due to cold weather. Lack of sunshine and cold weather has retarded growth of grasses and pastures as a rule have made little advance in the last two weeks. In the Central West much clover in southern counties has been killed by severe weather. Ranges are in fair shape but drying winds in the Mountain States have damaged them to some extent. Farm labor is generally scarce and high priced. Competitions of mines, saw mills, road building and industrial plants in many sections cannot be met by the farmers. A marked tendency on this account to turn plow lands into permanent pasture and to reduce acreage of corn is in evidence.

In New England, New York, Pennsylvania and New Jersey, some injury to winter wheat from freezing and thawing seems probable. Similar damage is reported from Maryland, Delaware, Illinois, Indiana, Ohio and Minnesota. In the Dakotas, Minnesota, and Montana the moisture condition is generally favorable. The plant is dormant in Iowa and most of Nebraska. It is showing some recovery in Kansas and Missouri from the freeze of the middle of March. The ground is exceedingly dry in west and southwest Kansas and the outcome in Nebraska is uncertain with considerable abandonment of acreage probable. The condition in Oklahoma is generally good except in the extreme west and northwest. The crop has been set back by the freeze in Texas and much abandoned acreage in the Panhandle is being sown to durum wheat.

The crop is heading in Florida, is well advanced on the Atlantic coastal plain but is late in Tennessee and northwest Georgia. In California fall sown wheat and barley on summer fallow land has a fair prospect.

In Ohio, Indiana and Illinois, oats are being sown in southern counties but the preparation of the ground for this crop in the northern counties has not begun. Seeding of oats is rapidly progressing in Missouri and Kansas with very little being done in Nebraska and none in Iowa. Good seed oats scarce in Missouri and Kansas. Oats have been badly injured by the recent freezes in Texas, Arkansas and Oklahoma.

Planting of corn is well advanced in Florida. Early corn in Mississippi, Alabama, Georgia, South Carolina and North Carolina severely injured by cold and replanting is general. Preparations for planting are progressing rapidly throughout southern Missouri and Kansas with considerable listing being done in Kansas. Planting is in progress in Oklahoma, is well advanced in Louisiana though but little has been done in Arkansas. Some early planted killed by recent freezes in Texas and Oklahoma and replanting has been begun.

Ranges and stubble fields are now available as pasture in range sections of Minnesota and North Dakota. In Texas the ranges have been set back two weeks by freezing with new grass coming in the Panhandle section. Drying winds have damaged the ranges in Arizona. Pastures are reported good in Florida and poor in Louisiana and California. In the latter state the long drought was broken on April 1 by rains in all sections which probably came too late to help the grass on plains and low foot hill ranges but will improve the lowlands. In Oregon, Washington and Idaho the drought was broken April 1 and ranges will be greatly benefited.

A SIMPLE FRICTION TEST FOR GRAIN ELEVATORS

BY W. F. SCHAPHORST, M. E.*

Every elevator manager knows that there is considerable friction in grain elevators that could be eliminated. Friction costs money. The useless friction costs just as much as far as the power end of the plant is concerned, as does the useful friction. In fact, all of the power that is developed in grain elevators, and which the engine or motor gives up, is lost in friction somewhere or other. Power is not stored anywhere; therefore all of it is lost.

Let us suppose, now, that in your plant 50 per cent of the friction is useful friction, while the remaining 50 per cent is useless. If you could eliminate the useless friction you would then have 100 per cent useful friction. It should be the aim of the grain elevator owner, then to eliminate as much useless friction as possible, add it to the useful side of his ledger and thereby increase the capacity of his plant, if need be, without installing new apparatus.

It may not pay to install ball bearings all over the plant, in place of the present bearings, because ball bearings are expensive when it comes to first cost. While ball bearings consume but little power will that saving pay for the bearings quickly enough? They should not be used in places where the saving in power would amount to less than the interest charges on the first cost, plus the cost of depreciation. All of these factors must be considered before the ball bearings are installed in preference to the less expensive types of bearings.

Main bearings are most important, because they usually handle all of the power. Thus, if the efficiency of a main bearing is only 95 per cent, it will absorb 5 per cent of the power of the engine or motor. But, if the efficiency of 100 small bearings distributed all over the machine shop is 95 per cent, they will absorb no more power than will the single bearing. It would hardly pay, therefore to install 100 ball bearings, whereas it is quite possible that it would pay to equip the main bearing with ball bearings.

Do not install new transmission equipment,

though, unless you are certain that you cannot sufficiently improve your transmission, without it. Perhaps you can improve the old equipment.

A good way to test the friction load on an engine or motor, a method that does not involve the use of expensive testing machinery or instruments, a method that is so simple that it should be used very often by every operator of grain elevators is as follows:

Pull your watch out of your pocket and take the time required for your machinery to come to a dead stop after the power is shut off. That is certainly easy enough.

I will explain the test fully. Consider the flywheel of a 50-horsepower engine which runs at the rate of 250 revolutions per minute. The flywheel has a definite weight and contains a definite amount of stored energy while it is running. No matter what year, month, week, day, hour, minute or second that flywheel is running, it contains exactly so much energy while running at the normal rate of 250 revolutions per minute. Therefore, when you shut off the steam, the flywheel is going to keep running for a short time.

How long it will run cannot be computed. The only way you can find out is to try it with your watch. It all depends upon that thing about which I am now writing, friction. If your machines are running under full load, the engines may stop in a half minute or less. If your machines are running "empty" it may take a full minute or more for the flywheel to come to rest. If the friction is very great the stop may occur in 15 seconds, and if the friction is really small two minutes may elapse. So, it is plain that friction has about everything to do with the length of time required for the machinery to come to a stop after the propelling energy is shut off, whether it be steam or electricity.

To be sure, the weight of the flywheel also has much to do with it. A wheel weighing 1,000 pounds will naturally run about twice as long as will a 500 pound wheel, but in the end the results are the same, anyway no matter what the weight. There is no change in the method. When you make the test, it is best to do it with machines running "empty," because then conditions are more liable to be the same everytime the trial is made.

On the first day of the test, for instance, let us assume that the time required to come to a stop, with machines empty, is exactly two minutes. This time may be far too long, but we will use it for the sake of illustration. Changes are then made in the transmission equipment. The belts are given attention, the bearings are cleaned and oiled, wherever babbitting is necessary the bearings are babbitted, the shafting is aligned properly, and in every way possible the friction losses are eliminated. The next time the test is made it takes two minutes and a half for the engine to stop. This indicates a very good improvement and the betterment has cost nothing outside of a little work, babbit and oil. Nothing new has been bought or added.

Now, after all improvements possible have been made in this way, after the stopping time has been as great as it can be made with machines running empty, the owner or whoever is in charge can decide whether or not it might be worth while to equip some of the principal bearings with ball bearings or in other ways improve transmission with new apparatus. If the stopping time cannot be increased, there is no argument in favor of ball bearings, but if such bearings do increase the stopping time and increase it sufficiently, it may be good business to install them. Judgment must always be used.

Continue to improve the transmission every day for a month, two months, or a year. Begin an efficiency crusade of your own. At the end of that time you will doubtless find that the stopping time has increased considerably, and you can thereupon conscientiously stick a feather in your hat.

I write of flywheels throughout because it is easiest to think about flywheels. But the body that stores that energy need not necessarily be flywheels. The rotors in the steam turbines usually keep the turbines running for a long time after

the steam is shut off—sometimes for hours. Large electric motors also keep on running for some time after the current is thrown off. Whatever form of motive power is used, the above arguments hold. If it is only desired to test the efficiency of the engine itself, this method that has been described will do the trick nicely.

In a nutshell, make the time that your machines will run on momentum as long as possible.

ROSETTE DISEASE AND HESSIAN FLY ATTACKS ON WHEAT COMPARED

The rosette disease of wheat, discovered in Illinois and Indiana in 1919, affects wheat seedlings in somewhat the same way as do the attacks by the Hessian fly and certain other insect pests. When the trouble is caused by insects, their presence or evidence of their work serves definitely to show the cause of the trouble. Wheat seedlings attacked by rosette disease alone show no evidence of the presence or work of insects, it is pointed out by specialists of the United States Department of Agriculture who have been investigating these wheat maladies.

The first positive indications of the rosette disease become evident early in the spring after the growth of the healthy plants is well started. Plants affected by rosette remain dormant in the spring after the healthy plants commence their spring growth. Infested fields are spotted with irregular patches of dwarfed plants, the leaves of which are dark-blue-green in color and are rather broad and stiff. The whole plant has a bunched, rosette appearance.

When both rosette disease and insect injuries, especially those by Hessian fly, occur together in the spring, it sometimes is difficult to determine accurately the injuries caused by each. As the rosette disease is not apparent in the autumn and as it becomes evident in the spring before the emergence of the adult Hessian fly, there is very little chance to confuse the two maladies during these periods. In the late spring, however, there is a possibility of confusion, especially if plants affected by rosette show, in addition, the spring infestation of the Hessian fly. These matters are discussed in Bulletin 1137, Symptoms of Wheat Rosette Compared with Those Produced by Certain Insects, just issued, and may be secured by anyone interested upon request from the United States Department of Agriculture, Washington, D. C.

INFORMATION ON DURUM WHEATS

There are 12 varieties of Durum wheat commercially grown in the United States. They differ in their adaptation and yielding ability, resistance to drought and rust, and in the quality of their grain, as well as in their appearance. They are all described by J. Allen Clark and John H. Martin, of the United States Department of Agriculture, in Farmers' Bulletin 1304, "The Durum Wheats," just published.

The Durum wheats are all Spring varieties with thick, compact heads, long stiff beards, and large hard kernels. They are grown principally in the northern Great Plains area, where they are best adapted because of their resistance to drought and rust, which enables them to outyield other Spring wheats. During the past 10 years the center of the Durum acreage has moved northward and westward.

Most of the Durum varieties have white (amber) kernels, and the grain is used chiefly for the manufacture of a granular flour called semolina, from which macaroni, spaghetti, and other alimentary pastes are made. There usually has been an active foreign demand for this wheat but the flour mills in this country were not equipped for satisfactorily grinding these wheats and there was little demand for the product on the domestic market. More recently, however, large mills have been constructed for grinding Durum wheat exclusively. A considerable trade in semolina and Durum flour has developed, and finally a large macaroni industry has been established. The industry now uses annu-

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ally more than 20,000,000 bushels of Durum wheat, or nearly half the average annual production in recent years.

Kubanka is the variety best adapted for all the varying conditions in the sections producing Durum wheat. It is a high-yielding wheat, considerably resistant to rust, of good milling quality, and best adapted for making both macaroni and bread.

Acme and Monad are two similar amber Durum varieties which are very resistant to stem rust. Acme is the highest yielding Durum in most of South Dakota, and Monad is the best yielding variety in North Dakota. Both produce macaroni of a grayish color, considered by manufacturers less salable than that made from Kubanka wheat. Min-dum is the most productive variety in Minnesota. The distinguishing characteristics and the adaptation of the 12 different varieties are discussed in the bulletin, which may be had free of charge from the United States Department of Agriculture, Washington, D. C.

GRAIN POOLS GET TOGETHER

At a meeting of the various grain pooling organizations held at Kansas City on March 30, an agreement was reached as to who should handle the grain from the various sections. Now every farmer can know just which organization will lose his money for him.

Under the plan this program will be as follows: The American Wheat Growers will handle all the wheat grown in Washington, Oregon, Montana, Idaho, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Oklahoma, and Texas.

The U. S. Grain Growers, Inc., will handle wheat in Ohio, Illinois, Iowa, Indiana, with Minnesota and Missouri undecided. The U. S. Grain Growers will handle coarse grain in all states. Both organizations will establish agencies and facilities at terminal markets for mutual service. Activities will be co-ordinated along the lines of organization, field service. The 100 per cent pooling principle was endorsed for wheat.

All of this sounds comprehensive and quite formidable, but for the most part the actual working plans are as vague and uncertain as ever. However, the leaders of the pools realize that farmers everywhere are getting rather tired of promises that are never fulfilled, and a desperate effort will be made to establish some sort of a marketing system. This will be rather hard on the farmers who are committed to the plan, but may delay for another season the dissolution of the pools.

CHECK TENDERED AS "SETTLEMENT IN FULL"

BY LESLIE CHILDS

The question of when the acceptance of a check, tendered as "settlement in full," will amount to an accord and satisfaction has been the cause of many lawsuits. Suits of this kind have arisen in relation to many business enterprises, and, generally speaking, where such a check, or payment, is made as "settlement in full" of a disputed account, its acceptance will amount to an accord and satisfaction which will prevent the acceptor from collecting any balance that may be claimed as due.

The danger then of accepting a "settlement in full" check on a disputed account, which is less than is claimed to be due, is a real one for the acceptor and should be carefully guarded against. This point is illustrated in a striking manner in *Seeds, Grain & Hay Co. vs. Conger*, (83 Ohio St. 169) and, as the suit involved a dispute over the delivery of grain, the holding appears to be one of special interest to grain merchants and dealers. The facts and circumstances which culminated in the action were, briefly stated, as follows:

The defendant contracted with the plaintiff to sell and deliver 10,000 bushels of oats during August of that year, at 37 cents per bushel. On the 17th of August, it appears, the defendant found that he would be unable to make delivery, and notified the plaintiff that he could not comply with

the contract and desired to settle. The testimony relative to the conversation between the parties at this time was not in accord, however, at this time the defendant sent the plaintiff a check for \$300. All right.

Now the defendant indorsed upon this check the following: "Settlement in full August account." Along with this check the defendant sent a letter in which he stated that the check was in settlement in full for the oats previously sold. The plaintiff received the check, cashed it, and then wrote the defendant in substance that the amount had been placed to his (the defendant's) credit. Defendant did not reply to this letter.

Thereafter the plaintiff brought the instant action against the defendant for \$700 upon the contract for the failure to deliver the oats. The defendant contended that the acceptance of the check, as noted above, constituted payment in full of the matter in dispute. The trial in the lower court resulted in a judgment in favor of the defendant. The plaintiff carried the case to the Ohio Supreme Court, where, in stating the general rule, relative to when the acceptance of a smaller amount than is claimed to be due will be deemed to constitute an accord and satisfaction, it was said:

In the application of the law of accord and satisfaction, a distinction between liquidated and unliquidated demands is universally recognized. Where there is a bona fide dispute over an unliquidated demand, and the debtor tenders an amount less than the amount in dispute, upon an express condition that, if accepted, it shall be in full of the disputed claim, the creditor must accept it upon the condition unless the condition be waived, otherwise he must

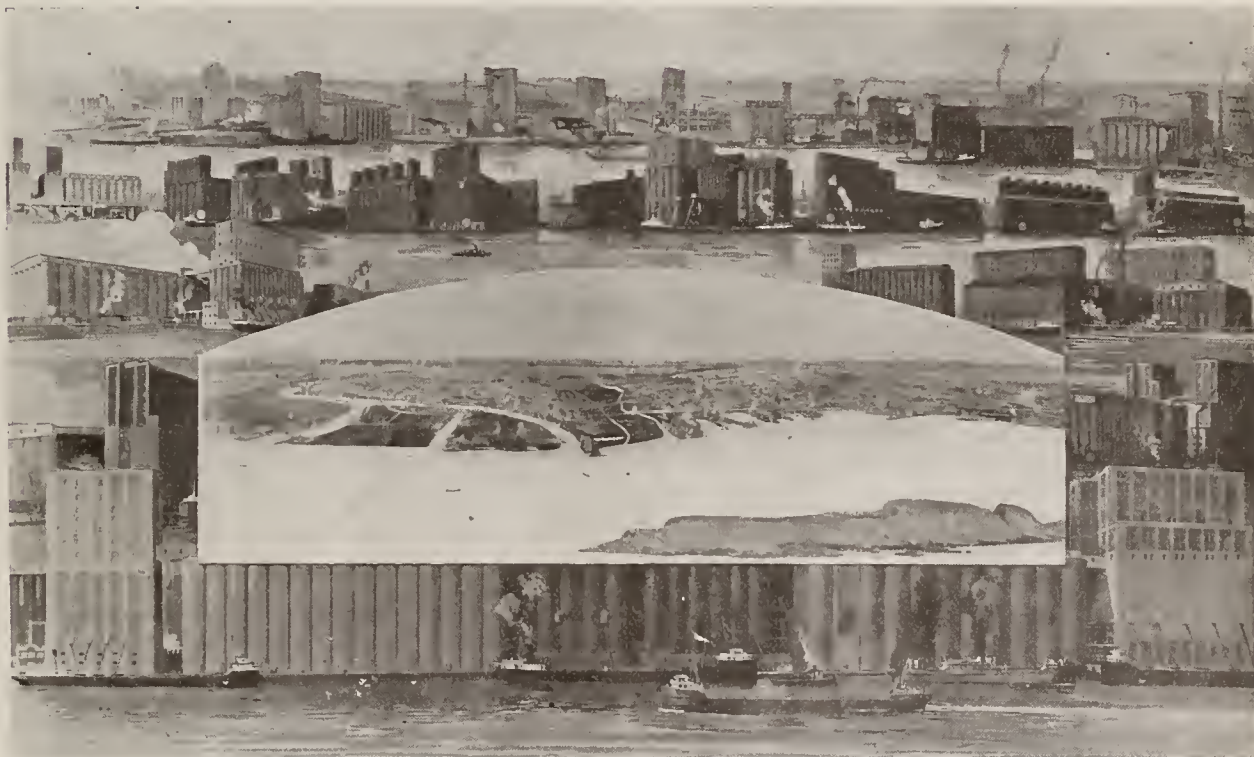
the check as payment in full, or to return it. He kept it and drew the money on it, knowing the condition imposed, and thereby completed the transaction as an accord and satisfaction. * * *

In conclusion the Supreme Court affirmed the judgment rendered in the lower court in favor of the defendant. Holding, as outlined in the opinion, that by the acceptance of the check for a smaller amount than he claimed to be due, which was tendered as "settlement in full," he, the plaintiff, had worked an accord and satisfaction that would preclude him from recovering any balance alleged to be due.

The foregoing case was carefully considered and is without doubt in accord with the great weight of opinion upon the point decided. It illustrates in a striking manner the importance of exercising care in the acceptance of checks which purport to be settlement in full of disputed accounts, which are less than is claimed to be due. For as we have seen the acceptance of such a check will as a general rule constitute an accord and satisfaction that will prevent the creditor from having further recourse upon the debtor. Truly this is a nice point of business law for one to have in mind in situations of this kind.

200,000,000 BUSHELS IN 106 DAYS

From September 1, to December 15, 1922, 106 days in all, a total of 200,458,108 bushels of grain, wheat, oats, barley and flax was shipped from the elevator at the Canadian Head of the Lakes, Port Arthur and Fort William. The picture reproduced herewith, grouping the elevators of the two cities,



A GROUP PICTURE OF FORT WILLIAM AND PORT ARTHUR ELEVATORS

refuse it; or, if he has received the amount tendered he must return it. * * * He cannot accept the tender in such cases and recover the balance which he claims, because he is presumed to have accepted it upon the express condition on which it was offered.

After the foregoing statement of the general rule the court reviewed a number of authorities in which it had been applied. Then directing its attention to the facts of the instant case, and in determining whether or not they brought it within the general rule it was said in part:

In this case there is a dispute which grew out of the inability of the defendant to fulfil his contract to deliver 10,000 bushels of oats during the months of August at 37 cents a bushel. The defendant sought to limit his liability by securing a settlement at the highest market price on August 17; and he insists that he succeeded in doing so, and paid the amount agreed upon. * * * The plaintiff denies all this, except the payment of the money.

Here was a real controversy, which yet exists, over the amount of the defendant's liability. * * * The defendant sent to the plaintiff his check, indorsed on the face of it, "Settlement in full August account," and accompanied it with a letter saying, "Enclosed find my check for \$300, which, according to our talk over the 'phone today, is settlement in full for the 10,000 bushels of oats. * * *

The plaintiff had only one alternative—to accept

was arranged by the Canadian National Railways. The total capacity of the group is 57,000,000 bushels, with an additional 7,000,000 either under construction or with plans developed for building. The two cities together have 36 miles of deep water frontage, on Lake Superior and the Kaministiquia River.

YELLOWBERRY IN WHEAT

Yellowberry in wheat indicates a soft starchy condition of the kernel, says Director H. M. Bainer, of The Southwestern Wheat Improvement Association. It shows poor quality and low protein or gluten. Flour made from it is low in quality and for this reason yellowberry wheat always sells for several cents per bushel below equal grades of good colored wheat.

Yellowberry is not easily prevented. In fact it will always occur in some cases in spite of all that can be done. When the causes for its production are clearly understood, there is good reason to believe that much of it can be prevented.

Yellowberry occurs more often in humid climates,

in wet seasons, on sandy soils and on soils deficient in nitrogen. Most authorities and experimental data indicate that any treatment which will make more nitrogen available will reduce yellowberry.

Early preparation of the ground after harvest and the use of legumes in the rotation tend to increase the supply of available nitrogen and reduce yellowberry. Fortunately both practices can be highly recommended from the viewpoint of better yields and safer farming. Early preparation of the ground in experiments in Kansas, for example, have increased the average yield from 25 to 100 per cent, depending on the soil and the location. Good rotation will in most cases result in further increases in yield and reduce the risk of loss. This appears to be one case where better quality of wheat, larger yields, safer farming and larger profits go hand in hand.

CONTRACT WHEAT GRADES AT PRINCIPAL MARKETS

CHICAGO

All contracts made for wheat hereafter, unless otherwise specified, shall be understood as for "Contract" wheat, and on such contracts, requiring delivery after June 30, 1917, a tender of No. 1 Dark Hard Winter wheat, No. 1 Hard Winter wheat, No. 1 Yellow Hard Winter wheat, No. 2 Dark Hard Winter wheat, No. 2 Hard Winter wheat, No. 2 Yellow Hard Winter wheat, No. 1 Red Winter wheat, No. 1 Northern Spring wheat, or No. 1 Velvet Chaff wheat; and on such contracts, requiring delivery after July 31, 1917, a tender of No. 1 Dark Hard Winter wheat, No. 1 Hard Winter wheat, No. 1 Yellow Hard Winter wheat, No. 2 Dark Hard Winter wheat, No. 2 Hard Winter wheat, No. 2 Yellow Hard Winter wheat, No. 1 Red Winter wheat, No. 2 Red Winter wheat, No. 1 Dark Northern Spring wheat, No. 2 Dark Northern Spring wheat, or No. 2 Northern Spring wheat, in such proportions as may be convenient to the seller, subject, however, to the provisions of Section 5 of Rule XXI, shall be deemed a valid tender.

Wheat that is inspected as smutty, or treated by any other process than drying, shall not be deliverable on contracts.

"Also on such contracts, for delivery of wheat on and after July 1, 1917, a tender of No. 3 Dark Hard Winter wheat, No. 3 Hard Winter wheat, No. 3 Yellow Hard Winter wheat, No. 3 Red Winter wheat, No. 1 Hard White wheat and No. 2 Hard White wheat, at a discount of 5 cents per bushel, in such proportions as may be convenient to the seller, subject, however, to the provisions of Section 5 of Rule XXI, shall be deemed a valid tender; and on such contracts, for delivery of wheat on and after August 1, 1917, a tender of No. 1 Red Spring wheat and No. 2 Red Spring wheat, without discount, and No. 3 Dark Northern Spring wheat, No. 3 Northern Spring wheat and No. 3 Red Spring wheat, at a discount of 8 cents per bushel, in such proportions as may be convenient to the seller, subject, however, to the provisions of Section 5 of Rule XXI, shall be deemed a valid tender."

MILWAUKEE

All contracts for the purchase and sale of wheat for future delivery in this market, unless otherwise specified, shall be understood to be for the following: On such contracts, requiring delivery after June 30, 1917, No. 1 Dark Hard Winter Wheat, No. 1 Hard Winter Wheat, No. 1 Yellow Hard Winter Wheat, No. 2 Dark Hard Winter Wheat, No. 2 Hard Winter Wheat, No. 2 Yellow Hard Winter Wheat, No. 1 Red Winter Wheat, No. 2 Red Winter Wheat or No. 1 Northern Spring Wheat; and on such contracts, requiring delivery after July 31, 1917, No. 1 Dark Hard Winter Wheat, No. 1 Hard Winter Wheat, No. 1 Yellow Hard Winter Wheat, No. 2 Dark Hard Winter Wheat, No. 2 Hard Winter Wheat, No. 2 Yellow Hard Winter Wheat, No. 1 Red Winter Wheat, No. 2 Red Winter Wheat, No. 1 Dark Northern Spring Wheat, No. 1 Northern Spring Wheat, No. 2 Dark Northern Spring Wheat or No. 2 Northern Spring Wheat; also on such contracts, for delivery of

wheat on and after July 1, 1917, a tender of No. 3 Dark Hard Winter Wheat, No. 3 Hard Winter Wheat, No. 3 Yellow Hard Winter Wheat, No. 3 Red Winter Wheat, No. 1 Hard White Wheat and No. 2 Hard White Wheat, at a discount of 5 cents per bushel, shall be deemed a valid tender; and on such contracts, for delivery of wheat on and after August 1, 1917, a tender of No. 1 Red Spring Wheat and No. 2 Red Spring Wheat, without discount, and No. 3 Dark Northern Spring Wheat, and No. 3 Spring Wheat, No. 3 Northern Spring Wheat and No. 3 Red Spring Wheat, at a discount of 8 cents per bushel, or the higher grades of wheat.

KANSAS CITY

All contracts made for wheat, unless otherwise specified, shall be understood as for "contract" wheat, and on such contracts a tender of No. 1 Dark Hard Winter wheat, No. 1 Hard Winter wheat, No. 1 Yellow Hard Winter wheat, No. 2 Dark Hard Winter wheat, No. 2 Hard Winter wheat or No. 2 Yellow Hard Winter wheat shall be deemed a valid tender; provided, however, that No. 3 Dark Hard Winter wheat, No. 3 Hard Winter wheat, or No. 3 Hard Yellow Winter wheat may be delivered as contract wheat at a reduction of 5 cents per bushel from the contract price. Deliveries of the above grades may be made in such proportions as may be convenient to the seller, subject, however, to the provisions of Section 14, Article XIII or Section 7, Article XIV.

MINNEAPOLIS

The Minneapolis Chamber of Commerce rules with regard to the contract grade of wheat, provides that for the crop year of 1921-22, the grade of Spring wheat deliverable upon the Spring wheat "futures," starting with the month of September, 1921, and all subsequent future months, including July, 1922, shall be as follows: "On all sales of Spring wheat for future delivery, the contract grade shall be No. 1 Northern Spring wheat, provided that on all sales of Spring wheat for future delivery, the following grades may be delivered: No. 1 Dark Northern Spring at 2 cents above the price of No. 1 Northern Spring; No. 2 Dark Northern Spring at 1 cent under the price of No. 1 Northern Spring; No. 2 Northern Spring at 3 cents under the price of No. 1 Northern Spring; No. 3 Dark Northern Spring at 18 cents under the price of No. 1 Northern Spring, and No. 3 Northern Spring at 20 cents under the price of No. 1 Northern Spring. All of the above grades to be established by the Joint Board of Grain Appeals or other properly constituted authority of the State of Minnesota."

ST. LOUIS

On and after July 1, 1917, regular contracts for wheat for future delivery shall be for contract wheat and on such contracts the tender of any or all of the following grades shall be deemed sufficient: No. 1 Dark Hard Winter wheat, No. 2 Dark Hard Winter wheat, No. 3 Dark Hard Winter wheat, No. 1 Hard Winter wheat, No. 2 Hard Winter wheat, No. 3 Hard Winter wheat, No. 1 Yellow Hard Winter wheat, No. 2 Yellow Hard Winter wheat, No. 3 Yellow Hard Winter wheat, No. 1 Red Winter wheat, No. 2 Red Winter wheat, No. 3 Red Winter wheat.

Provided, however, that on all No. 3 Dark Red Winter wheat, No. 3 Hard Winter wheat, No. 3 Yellow Hard Winter wheat, or No. 3 Red Winter wheat so tendered 5 cents per bushel shall be deducted from the contract price; and provided, further, that the tender on each lot of five thousand (5,000) bushels shall be in whole either Hard wheat or Red wheat of the grades hereinbefore specified; and provided, further, that not less than one thousand (1,000) bushels shall be tendered in any one elevator.

Nothing in this section shall be construed as permitting the delivery of Hard Winter wheat on contracts made for Red Winter wheat; nor shall it be permitted to deliver Red Winter wheat on contracts made for Hard Winter wheat.

WINNIPEG

Contract grade for delivery on October contracts is No. 1 Northern, with No. 2 Northern at 3 cents penalty and No. 3 Northern at 8 cents (formerly 7 cents) penalty.

SUBSTITUTING POTATOES FOR CORN TO MAKE ALCOHOL

The exports of American corn to Germany, which amounted to more than 30,000,000 bushels in 1922, may be materially reduced because of the large potato crop harvested in that country last year. It is estimated that in the latter part of the year 75 per cent of the corn imports were used in the production of alcohol, since the Government had limited the quantity of potatoes which could be used for this purpose.

The special representative of the United States Department of Agriculture in Berlin, E. C. Squire, reports that in view of the estimated harvest of nearly one and one-half billion bushels of potatoes in 1922, the German Ministry of Agriculture has just issued an order which will permit the use of potatoes in the manufacture of 60 per cent of the output of alcohol from agricultural sources instead of only 20 per cent as before.

If the production of agricultural alcohol in 1923 does not exceed the recent estimate of 53,000,000 gallons (2,000,000 hectoliters), it is probable that at least 32,000,000 gallons will be produced from potatoes, leaving only 21,000,000 gallons to be distilled from other materials, including corn. Even if this amount were produced entirely from corn it would require only about 8,400,000 bushels at the estimated ratio of 2½ gallons of alcohol to a bushel of corn. Since the importation of American corn for other purposes does not normally exceed 6,000,000 bushels, it does not seem probable that Germany will require in 1923 more than one half the quantity imported last year. There is, however, a wide possibility of error in this estimate, since not only is the estimate of alcohol production uncertain, but there is uncertainty as to the demand for corn for feeding.

The use of corn in the German distilleries is a very recent development due only to the restrictions on the use of potatoes and domestic grain for alcohol production. In the season 1912-13 out of a total alcohol production of about 100,000,000 gallons, 80 per cent was distilled from potatoes, 15 per cent from domestic grain, 4 per cent from molasses and one per cent from other materials. In the following season the proportions were practically the same.

During the war, synthetic alcohol from cellulose, carbides and other materials was manufactured extensively in Germany. Even under present conditions synthetic alcohol would be a dangerous competitor of the agricultural product if the process were not controlled by a Government monopoly and limited in output to one-tenth of the total alcohol production from all sources. The Government has since 1918 monopolized also the wholesale trade in alcohol throughout the whole country. The greater part of the distilleries are in private hands, but they must market the product through the monopoly. The main center of alcohol production is in North Germany, particularly in the Eastern provinces of Prussia. In this section the soil is light and sandy, and well suited to potato culture. The owners of the large farms in this section find it very profitable to produce potatoes for the distilleries and for feeding of the by-products, known as schlempe, to their cattle, particularly useful in the case of milch cows.

All German agricultural authorities speak very highly of schlempe as an animal food. It is said to have nearly as great food value as the raw material from which it is produced since in the fermentation process the albumen content is greatly increased by the addition of nitrogen from the air. It is therefore contended that the use of potatoes for alcohol production does not actually reduce the supply of human food. The alcohol shipped away represents practically no loss to the soil, and by feeding the schlempe to cows, it is claimed that the milk supply will be greatly increased and also that the soil will be made more fertile. From the point of view of the American corn exporter it may be that the increased use of potatoes for alcohol and the consequent feeding of schlempe may reduce not only the demand for corn for alcohol production but

also the demand for feeding purposes. However, tests in the feeding of schlempe to swine have not been very successful.

In bringing pressure to bear on the Government for the removal of restriction on the use of potatoes, the producers have contended also that even the maximum use of potatoes in distilleries would not materially reduce the supply since only about 45,000,000 bushels (1,200,000 hectoliters) would be required under the 60 per cent regulation, out of a total production of 1,500,000,000 bushels. Furthermore nearly 60,000,000 bushels of the crop are said to be of poor quality, fit only for the distilleries or for animal feeding. The price is already so low that cabmen in Berlin are said to be feeding potatoes to their horses.

On the other hand it is thought possible that the potato crop has been overestimated. There is an additional motive for exaggeration in the desire of the farmers to show a great surplus of potatoes in order to prevent the Government from carrying out its announced intention of confiscating a large part of the grain crop at a fixed price.

THE LIGHTNING HAZARD

This is the time of year when fires in mills and elevators are likely to occur during storms. Tall or isolated buildings are a mark for the bolt, which explains why so many elevators at stations and farm barns are destroyed from this cause. About a quarter of the elevator fire casualties are caused by lightning. Mill fires from this cause are not nearly so numerous proportionately, but mill buildings as well as mill elevators are frequent marks for lightning, as fire records show.

While the lightning rod was discredited for many years as a protection against casualties of this sort, insurance experience for many years in the kind of risks most exposed to lightning, has demonstrated that an adequate rodding system is a protection. The experience of farm mutual insurance companies is overwhelming in this regard. Unless a building is iron-clad, lightning rods are the best defense against electric storms.

AUSTRALIAN WHEAT FARMS

Wheat farms in Australia average pretty large. Last year, or rather 1921-22, there were 18,625 holdings in New South Wales on which wheat was raised and the total acreage was 3,689,110 acres. That would make the average area per holding devoted to wheat 198 acres. The average wheat farm averaged even more in 1920-21, or 206 acres apiece. And in 1915-16 the average of 22,453 holdings was 224 acres devoted to wheat.

Of the large farms devoted to wheat, from 1,000 acres up, there were only 209, and their aggregate acreage was only 354,084, or less than 10 per cent of the area devoted to wheat. There were 3,871 holdings in which the area was from 1 to 50 acres; and the aggregate acreage was 80,398. The great bulk of the crop of 1920-21 was raised on wheat farms of from 50 to 1,000 acres. Of the farms with from 50 to 299 acres of wheat there were 8,480 with an acreage of 1,285,186, and a production of 23,270,817 bushels. Farms with a wheat acreage of from 300 to 999 acres were 3,098 in number and the acreage was 1,407,709 and the production 24,976,471 bushels. Accordingly about seven-eighths of New South Wales' wheat crop of 55,625,358 bushels that year was raised on wheat farms of between 50 and 999 acres. Nearly half of it was raised on farms of between 300 and 999 acres. Perhaps nowhere else is the average size of wheat farms so large.

CO-OPERATIVE GRAIN PESTS

Have the insects that live by their depredations on grain been infected by the general craze for co-operation in agricultural circles? It looks like it, according to a report circulated by the U. S. Department of Agriculture. It seems that the broad-nosed grain weevil, which is found in the South, cannot attack whole kernels of grain of a

medium degree of hardness. But cracked, damaged or soft grains are quickly infested by the broad-nosed grain weevil. Now, the rice weevil, on the other hand, with which the broad-nosed grain weevil is commonly associated, begins the attack on the harder kernels of grain; and the broad-nosed fellow follows on and completes the job of destruction. This looks like diabolic co-operation; but it can be stopped by destroying both.

VARIETIES OF HARD RED SPRING WHEATS

Of the 24 distinct varieties of Hard Red Spring wheat now being commercially grown in the United States, the Marquis is the leading variety, according to J. Allen Clark and John H. Martin, agronomists, United States Department of Agriculture, in Farmers' Bulletin 1281, just published. Since its introduction into this country in 1913, Marquis wheat has become more widely grown than all other varieties of Spring wheat. It has outyielded almost all other varieties, due principally to its earlier maturity, and excels them in the quality of its flour.

The varieties of Hard Red Spring wheat differ widely in their yielding ability, rust resistance, earliness, and milling and baking value, as well as in their external appearance and in their adaptation to local conditions. Of the new varieties recently developed, the Kota is the most promising, say the investigators. In North Dakota it has outyielded the Marquis in seasons when rust is prevalent, and limited experiments show it to be best adapted to the eastern and southern parts of that state, where stem rust is often a serious factor in wheat production. The Preston variety yields only slightly less than the Marquis in the Minnesota and Red River Valleys, but considerably less in other sections. The Red Fife and Power varieties are best adapted to northwestern North Dakota and northeastern Montana.

Detailed descriptions of each of the 24 varieties in this class, with discussions of their adaptation and value, supplemented by maps showing the areas where the more important ones are grown, are included in the bulletin, which may be obtained free as long as the supply lasts, upon application to the United States Department of Agriculture, Washington, D. C.

ROTATION AND MANURE

The Southwest Wheat Improvement Association says:

Continuous growing of wheat on the same land year after year means lower yields. There may be some apparent exceptions to this statement, especially where the land is relatively new and where yields are limited by moisture rather than by soil fertility. But there are several evils that follow continuous cropping besides a decrease in yield, such as greater damage from insects, diseases and weeds, in addition to greater risks and inadequate distribution of farm work throughout the year.

At the Kansas Experiment Station continuous cropping to wheat for 10 years reduced the yield to less than 7 bushels per acre, whereas during the same seasons, land that had been rotated with corn produced a trifle over 16 bushels per acre. In another rotation, which included Alfalfa, the yield was 18 bushels and this was increased to 28 bushels by the application of 5 tons of barnyard manure per acre every 3 years. In other words, the rotation and the barnyard manure produced four times as much wheat as was secured by growing wheat alone.

No rotation can be suggested that will fit all conditions in the Southwest. The great diversity of soils and climate makes it necessary to use a different plan for each section or region, or frequently for each farm. It may be stated, however, that no rotation is complete without a legume and a cultivated crop.

Recent reports of the Kansas Experiment Station show an average gain of more than seven bushels of wheat per acre as a result of the application of two and a half tons of manure per acre annually. This figures out about two dollars per ton for the

manure with wheat at one dollar per bushel. In another case five tons of manure applied once in three years to wheat grown in rotation with other crops increased the yield three bushels per acre. The other crops were also benefited by the manure.

In Oklahoma an application of manure produced 23 bushels of wheat per acre as compared with 13 bushels when no manure was applied—a gain of 10 bushels. In all cases there is no doubt of a residual effect, such that if the application of manure was discontinued, the manured ground would continue for many years to produce higher yields than land which had never received manure.

WEED SEEDS IN SPRING WHEAT

Threshed Spring wheat usually contains much foreign material, consisting almost entirely of noxious weed seeds. Investigations conducted by R. H. Block and C. R. Haller of the Bureau of Agricultural Economics, United States Department of Agriculture, show that in the 1920-21 crop there was approximately one bushel of foreign material, or "dockage," in every 22 bushels of Spring wheat threshed. This represents over 9,500,000 bushels of dockage for the Spring wheat crop.

More than 200 kinds of weed seeds are found in Spring wheat, but less than 20 of these appear commonly. The foreign seeds most commonly found in the Department's investigations, named in the order of their frequency, were wild oats, wild buckwheat, cultivated oats, mustard, lamb's-quarter, barley, green foxtail, hare's-ear mustard, flax, rye, cow cockle, pigweed, yellow foxtail, sunflower, corn cockle, wild rose, king-head, and wild pea (vetch). Wild oats appeared in over 99 per cent of the lots of wheat examined. Grain inspection statistics show that the percentage of dockage found in Spring wheat is gradually increasing.

Foreign material in wheat is objectionable because it is an economic waste, says the Department. The growing of weed seeds with the wheat reduces the yield of wheat and increases the cost of harvesting and threshing. Foreign material occupies valuable space in wagons and freight cars in country and terminal elevators and mills, and it often has a bad effect on the milling and baking qualities of the wheat. That clean seed combined with good cultural methods will produce clean wheat is being demonstrated constantly on many farms, and that the marketing of only clean wheat is profitable there can be no doubt. The farm is the logical place to clean wheat, preferably as part of the threshing operation. When the cleaning is done on the farm, the cleaned wheat will bring a better price on the market, the freight on the dockage will be saved, and the screenings will be available for feed, and when finally ground can be substituted for the higher priced feeds, such as oats, corn, and commercial mill feeds.

FUTURE TRADING ACT CONSTITUTIONAL

A news dispatch from Washington on April 16 carried the information that the Supreme Court had rendered its decision on the Futures Trading Act, known as the Capper-Tincher Law. This was verified by telegram, but only the meager news items are available. This reads as follows:

"The United States Supreme Court today declared constitutional the Grain Futures Trading Act, designed to prevent manipulation of the grain markets on boards of trade and exchanges.

"The first futures trading act was declared unconstitutional by the Court because Congress sought to regulate the grain exchanges by using its taxing power.

"The law was then amended, but was attacked by the Chicago Board of Trade and other big grain exchanges.

"Today's decision is final in giving the Secretary of Agriculture power to regulate the exchanges."

THIRTY-YEAR, tax-free 4½ per cent bonds to the extent of \$75,000,000 have been offered by the Federal Land Bank and will be quickly absorbed as high class investments.

NEWS LETTERS

DULUTH

S. J. SCHULTE - CORRESPONDENT

OPERATORS here are looking forward to a steady movement of grain from over the country to the elevators here during the next two months. Advices received by elevator interests have been to the effect that a large proportion of last fall's crop of Durum is still to be marketed from over North Dakota and Minnesota. It has been claimed that farmers are anxious to realize upon their remaining holdings of grain in order to clean up their liabilities as far as possible and to obtain a fresh start. Commission men here are endeavoring to impress upon Northwest farmers the advisability of maintaining the acreage seeded to Spring wheat and Durum up to their average, as they feel satisfied that an active demand will prevail next fall and winter for all the Spring wheat that can be raised, and that liberal premiums are likely to be paid for it, owing to the better demand coming for it from Buffalo millers, who have found it necessary to obtain direct representation on this market. Millers down that way experienced difficulty in obtaining sufficient Spring wheat for mixing purposes last season on account of the high tariff having resulted in shutting out Canadian imports.

Many grain men on the Duluth market availed themselves of the opportunity to enjoy vacations at Florida and California winter resorts during the off season. H. E. Emerson of A. D. Thomson & Co., Charles T. Mears of the Itasca Elevator Company, Ward Ames of the Barnes-Ames Company, and H. S. Newell have returned from Florida trips. J. F. McCarthy is taking a holiday in California and G. P. Harbison is away on a visit to New York and other eastern point. G. G. Barnum, Sr., is at Hot Springs, Ark.

Watson S. Moore of the Moore Grain Company was a recent visitor on this market from his house's New York headquarters. He expressed himself as hopeful regarding the outlook for export trade in wheat and rye, in view of the progress being made in moving out the supplies of Canadian grain that had accumulated down that way. As he saw it, general conditions are making for higher prices in all grains, the main factor being the outlook for a reduced Winter wheat yield this season and the late sowing of Spring wheat in the Northwest owing to the backward spring and the smaller acreage of plowing so far done. He noted too that Canadian holders of grain are not pressing it to the markets as urgently as they were, being disposed to hold out for higher prices.

With its quotation pushed up to \$3.32 recently, increased attention has been directed to operations in flaxseed on this market during the last few weeks. Specialists in that product are sanguine that the production of flaxseed over the Northwest will be increased by 10,000,000 bushels up to approximately 20,000,000 bushels during the coming season as a result of the campaign that was conducted in the principal growing districts during the winter months. A considerable proportion of the increase will, it is thought, be brought about through an extension of the plan of sowing flax and wheat together. Especially favorable results were reported to have been obtained through growing flax and Durum wheat together.

With over 22,000,000 bushels of grain now in store at Duluth and Superior, some of the elevators are filled up and the opening of navigation is being awaited with anxiety. As a result of below-zero temperatures prevailing during three weeks of March, the thickness of ice in this harbor was increased materially and vessel men have been making wagers lately that the first steamer from the East will not arrive here before May 1. Some contend that navigations will not be officially opened here prior to May 7. A company that made a contract to move a freighter to an elevator for loading, found that 38 inches of ice would have to be cut through in the elevator slip and that the field extended for a considerable distance out into the channel. Oper-

ators are also finding themselves thrown out in their calculations by the stiff lake freight rate situation brought about through the competition for tonnage to move iron ore down the lakes. Vessel interests are now demanding a rate of 4½ cents a bushel on wheat from here for Buffalo delivery, and it is feared the rate may be pushed up still higher as the leading steamer operators have been able to steady iron ore moving contracts and are therefore turning down grain loading proffers. What is especially puzzling grain dealers is what the lake freight rates are likely to be next fall if the Northwest crops are up to the mark and the present activity in the steel trade is maintained. Some of the more sanguine are, however, counting upon relief in the traffic situation being afforded by the probability of more wild lake tonnage being available under the attraction of high rates.

Grain men here were gratified over the recent decision of the Interstate Commerce Commission holding that the present rates on grain from points in southeastern Minnesota to Duluth are not discriminatory, as against Milwaukee or Chicago. The decision was given in a petition filed with the commission by the Milwaukee Chamber of Commerce asking for a readjustment of rates. It was claimed in the petition that all rates on grain from points east of the Minneapolis & St. Louis Railroad in southeastern Minnesota and northwestern Iowa to Duluth are discriminatory as compared with the rates from the same points to Milwaukee, and also that the rates at points along the Chicago, Milwaukee & St. Paul railroad to Duluth are unfair and discriminatory. The Commission held that traffic over the Milwaukee road to Duluth does not come under the head of interstate commerce by reason of the contract with the Northern Pacific for the use of its line between the Twin Cities and Duluth. The decision however points out that the intra-state rates in effect over the Milwaukee road are discriminatory as compared with the Interstate Commerce rates and the carrier is directed to advance its rates to the level of the interstate figures in order to remove any discrimination between the two classes of rates. Traffic men on the Duluth market regard the decision with satisfaction, declaring that the case was one of the most important entered in several years. It is thought that if Milwaukee had won out in its contention, Duluth would have been excluded from participating in a large grain tonnage that comes here from over the territory affected by the decision as any readjustment in the rates might have been expected to lead to the traffic being routed to the rival market.

It will be incumbent upon buyers to insure grain or seeds to their full value against loss by fire from the time the property has been delivered to within 100 feet of their unloading place in line with recent adoption by the Duluth Board of Trade of an amendment to its rules. The proceeds of the insurance will stand as security to the actual owner to the extent of the amount owing to him for such grain or seeds. The amendment in the rules was made to obviate any disputes that might arise through neglect of a buyer to insure the grain as soon as it might be delivered to him for the protection of the seller. The necessity for care on that score is being emphasized by grain handlers here.

Trading in rye has been erratic on this market of late. Buyers who bought rye in the country freely during the fall and early winter in expectation of a liberal export inquiry being maintained in it have found themselves disappointed through political and economic developments in the European countries and more particularly through reports that Russia had sold substantial quantities of rye to Germany. Export sales of rye have consequently fallen below the earlier estimates and a smaller tonnage of that grain has been earmarked for shipment to the East at the opening of navigation. Operators claim that a proportion of the rye being held in the elevators here will show losses to its holders at the present lineup of the market. Confidence is felt in some quarters, however, that rye prices will gradually show improvement in view of realization that Russia has little grain to sell and consequent indications of better export demand for it lately. Stocks of rye in Duluth and Superior elevators now aggregate 9,450,000 bushels.

Elevator interests here have advices that a substantial quantity of corn remains in farmers' hands in southern Minnesota territory and in other districts tributary to this market. Operators are hopeful that a movement of it will start in upon a fair scale

shortly. A more attractive spot basis has been announced by the Board of Trade Commission Merchants Association lately in the hope of attracting a larger proportion of the expected movement this way.

R. M. White of the White Grain Company expressed the opinion that Northwest farmers will come up to the scratch in their record of seeding this spring provided the incoming of spring weather conditions is not unduly deferred. He thinks that if farmers are able to make the grade at all, little acreage will be permitted to remain in fallow. He commented upon the growing interest being shown in dairying over northern Minnesota and northern Wisconsin as shown in the heavier shipments of products being made. His firm's trade in feeds attained a heavy volume during the winter months, he asserted.

Movement of grain remaining in farmers' hands over the Northwest is likely to be deferred until seeding has been completed in the opinion of elevator men. They pointed that farmers cannot afford to lose any time in getting their seed in the ground in view of the late start. It is also thought that the deferring of marketing for a time might be a good thing for all interests, as handlers would be afforded an opportunity to clean up stocks that have accumulated at terminal points.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

LOUISVILLE elevator companies are handling a very fair volume of business, and the outlook is generally said to be good. Long storage stocks, which consisted principally of wheat, are being steadily reduced, as mills grind up wheat that is in outside storage prior to grinding their private storage wheat. There has been some talk in grain circles of dollar corn, and it must be admitted that the market is strong, and that corn isn't so awful far from the dollar level. However, there is a lot of difference between dollar talk and dollar corn. While it is a long way to harvest, and production cost will be greater this year due to higher labor cost, a good many grain men figure that there will be a tremendous acreage of corn planted this season, and that the market will begin slumping off a little later on.

History generally repeats itself. A high priced crop of any kind results in the following year's planting covering increased acreage. With 85-cent corn on the present market a lot of farmers who were disgusted with corn in the spring of 1922, will be planting heavily. In the South 30-cent cotton is resulting in tremendous acreage, and acreage is being extended into southern Kentucky and districts which heretofore have made practically no effort to grow cotton. Indications are for a big cotton crop, a heavy cottonseed crop, and lower prices on all cottonseed feed products in the fall.

The Kentucky Elevator Company reported very fair daily handlings, and a fair volume of grain in storage, although long time storage stock is being reduced somewhat. Officials of the company are feeling right good concerning the present situation and the outlook.

O. W. Edinger, of Edinger & Co., handlers of grain, feed, hay, etc., reported that markets were higher, and showing signs of going still higher, while demand is good, especially for feed. Hay is coming in slowly, due to bad roads, and the fact that farmers are busy in the fields and cars scarce. Locally car supply has been good, but the rural points are having the usual troubles.

Recent Government reports from Washington were to the effect that the Government is planning barge lines on the Monongahela and Ohio Rivers, making connections through to New Orleans, and there making connections with the coastwise trade as feeders. At the same time the large steel companies are shipping great quantities of steel products, 8,000 to 10,000 tons at a crack, to New Orleans, for reshipment by water through the Panama Canal to the West Coast. These barges are traveling empty on the return trip from New Orleans to the Pittsburgh territory for most part, and open an opportunity for river shipping. New terminals for transfer of water and rail freights are being opened at Pittsburgh, Memphis, Louisville, Jeffersonville, Ind., and other points. River boat builders are jammed with

orders for boats and barges, and it is beginning to look as if the river will come back strong within the next few years. The Government expects to complete the local and dam system from Pittsburgh to Louisville by the close of 1924, giving an all around 12 months boating stage of nine feet or better, which will assure steady transportation except during the ice period. Riverside grain elevators may be a future development, where equipped with rail facilities as well.

Feed prices as quoted on the local market show bran at \$34 a ton; mixed feed, \$35; middlings, \$35; hominy feed, \$34; cracked corn, \$35.

Hay prices show No. 1 baled Timothy, \$20.50 a ton, No. 2, \$19; Light Mixed Timothy, \$19 a ton; No. 1 Mixed, \$18; No. 2, \$16; No. 1 Clover, \$17, and No. 2, \$15; Wheat and oat straw, \$12.50 to \$13; and rye straw, \$14.

Oats are quoted at 51 cents a bushel for No. 2 White, with the No. 3 at a half cent under.

Corn prices show No. 3 White at 84½ cents, with No. 3 Mixed at about a half cent less, with Yellow at the same price. No. 2 is worth about ½ cent to one cent more than No. 3. There is no corn of lower than No. 3 rating being quoted, as corn is coming in at 16 to 17 per cent moisture, and is of unusually good quality, and handling well. There has been no freezing weather of a character to freeze out moisture, but the stock has been running unusually dry.

It is reported that there is a generally good demand for all feedstuffs. Livestock men are busy this year, and hog raising is on the incline. Dairy demand has also been good, while mules and horses are bringing better prices, and there is a better breeding activity being noted. It is reported that mule demand from the cotton country is especially strong this year, due to the heavy acreage that is being put in. Poultry feeds have been in good demand in spite of the fact that the poultry market isn't especially strong, and egg markets have been weaker than in years. A retail price of 23 cents a dozen on eggs, and good fresh ones at that, for Easter, makes one think of the good old days.

The American Hominy Company, which recently leased the plant of the Wathen Milling Company, at Louisville, one of the finest corn milling plants in the South, has closed down following a short period of operation, and a report has been confirmed, to the effect that the company is planning installation of a considerable amount of additional machinery, having found that the plant was not equipped for operation of the style used by the American company. Unconfirmed reports state that about \$50,000 worth of additional machinery will be installed. In building this mill the Wathen interests utilized but one side of the elevator and mill building, leaving plenty of room for installation of extra units, or equipment for producing other kinds of feed or grain products, with the result that any remodeling could be done easily.

Six men were injured when a scaffold broke and dumped them while working on the old plant of the Fleischman Malting Company, Louisville, which is being remodeled for grain storage purposes for new owners. Two of the men were reported in serious condition from the fall, having suffered a number of broken bones. Four only suffered cuts and bruises.

Garnet S. Zorn, president of S. Zorn & Co., local grain dealers and elevator operators, was married on Thursday, March 22, at Louisville, to Miss Edna Temple, daughter of the late Edward P. Temple, of North Pelham, N. Y. Miss Temple is a prominent young actress, who had one of the principal parts of "Blossom Time," which was playing in New York, she leaving the show to be married. Mr. Zorn is a son of the late Sebastian Zorn, founder of the local grain house, and for some years president of the Louisville Water Company.

Considerable damage was done to elevators and grain houses of the state in the high March winds, especially on March 11 and 12, when reports showed many concerns here and out in the state to have lost roofs, smoke stacks, etc. Thousands of farmers had buildings wrecked, and insurance companies have been hard hit under wind policies. Corydon, Ind., reported that Adolph Colin, miller at Ramsey, six miles from Corydon, had a new three-story flour mill wrecked, at a loss of \$15,000, and John Hughes of the same section was reported to have had a flour mill blown from the foundations. On the same date Maysville, Ky., reported the front of the Magnolia Flour Mills to have been caved in by wind.

John H. Shine, flour and grain dealer of New Albany, Ind., was recently elected president of the New Albany National Bank, at a special meeting of the Board of Directors, his election being to fill a vacancy caused by the recent death of J. Frank McCulloch, president of the bank. Mr. Shine had been a director of the bank for some years.

Officials of the Louisville & Nashville R. R., in a recent comment on car shortage, stated that grain shippers were still loading cars at considerably under maximum, average loadings being only about 50 per cent of capacity. While there is some newspaper talk of shortage of cars, and that the grain trade is feeling this shortage, the condition hasn't been true at Louisville, but small isolated points are having some trouble.

CINCINNATI

HARRY A. KENNY CORRESPONDENT

RESOLUTIONS have been adopted by the Cincinnati Grain & Hay Exchange condemning the co-operative marketing bill introduced in the Ohio legislature. A similar bill was vetoed last month by Governor McCray of Indiana. The action of the Grain & Hay Exchange followed that of the Ohio Grain Dealers Association at Columbus.

The grain and hay interests here contend that the measure contemplates their elimination as well as other like organizations and proposes to regulate the law of supply and demand. It was pointed out by Dominick J. Schuh, executive secretary of the Cincinnati Grain & Hay Exchange, that the prosperity of agricultural interests is dependent upon broad and unrestricted markets. This bill, he said, if passed will result in the placing of obstacles in the way of free exchange and ready movement of agricultural products to the ultimate consumer.

In a letter to State Representative Samuel I. Lipp of Cincinnati, the Grain & Hay Exchange urges him and other members of the Hamilton County legislative delegation to bring the grain and hay interests' views on the measure to the attention of the Agricultural Committee and to the House of Representatives in the event the bill is reported out of the committee.

S. A. Van Horn, at one time considered the largest handler of baled hay in Cincinnati and a member of the Chamber of Commerce since 1865, died last month



THE LATE S. A. VAN HORN

at Lawrenceburg, Ind., where he had resided many years. He was 90 years old. Death was caused by pneumonia, which followed a severe cold. Mr. Van Horn, who retired from active business life in 1908, had been engaged in the hay business for 58 years. The business founded by him in 1864 is now operated by his son, W. A. Van Horn. In 1913, Mr. Van Horn moved his business from Lawrenceburg, Ind., to Cincinnati. During the Civil War he supplied the Union Army with hay and was the first man to make large shipments of hay in barges down the Ohio River. Mr. Van Horn was for 25 years treasurer of Greendale, a suburb of Lawrenceburg. He was for 30 years a member of the Lawrenceburg Presbyterian Church. The Van Horn Company, which is owned by Mr. Van Horn's only son, operates three large hay warehouse at Lawrenceburg.

Stock issues of the Early & Daniel Company, dealers in grain and hay, manufacturers of special brands of balanced ration feeds and operators of two large grain elevators, are being offered by the brokerage house of Westheimer & Co. The Early & Daniel Company recently absorbed the A. C. Gale Grain Company and the Fairmount Elevator & Warehouse Company. The issues offered consist of 2,500 shares of 7 per cent cumulative preferred stock, callable on any dividend date at 115 and accrued dividends, and also 2,500 shares of no par common stock. The preferred stock is offered at \$100 and accrued dividends and buyers of the preferred stock are given the privilege of buying one share of the common stock for each share of the preferred stock purchased at \$32 per share. Dividend at 7 per cent on the preferred and \$2.50 per share on the common for the entire year has already been declared out of surplus.

Net assets of the company are \$1,078,494, equivalent to \$269.60 for each 7 per cent preferred share of \$100 par and the book value of the common stock is \$33.92 per share, exclusive of the good will and trackage rights.

The company is capitalized at \$400,000 7 per cent cumulative preferred stock and 20,000 shares of no par value common stock. The consolidated earnings of the company for 1923 are expected to amount to more than 6½ times the dividend on the preferred stock issue.

With a face ruddy and unwrinkled as a man half of his years, John W. Fisher, the oldest member of the Chamber of Commerce celebrated his 94th birthday last month. He joined the Chamber in 1858 and was noted as the grain dealer who made the contract with General W. T. Sherman for the fodder and provisions for the March to the Sea. Mr. Fisher is the oldest member of the Cincinnati grain trade. President D. C. Keller and other members of the Chamber congratulated him when he appeared at the Produce Exchange and he was presented by Charles E. Roth, former County Treasurer, with a birthday card from the Savoy Birthday Club. A. D. Fisher, his oldest son accompanied the aged grain merchant to the Exchange.

The principle of a bill recently introduced in the Ohio House of Representatives for licensing hay dealers has been approved by directors of the Cincinnati Grain & Hay Exchange. The directors oppose one section of the measure which eliminates persons engaged in agricultural pursuits from complying with its provisions. The directors contend this section is discriminatory on the grounds that farmers, who are extensive balers of hay, would not have to comply with the regulations. The directors approved the appointment of J. A. Hallam, assistant chief grain inspector, as chief inspector. He succeeds George Munsen, who resigned a month ago.

Danny Kallaher, who was formerly connected with the local hay business and whose pilgrimage to various places throughout the country in efforts to regain his health have been so hard and so long, has returned to Cincinnati. He was assisted home from Asheville, N. C., by William R. McQuillan of the McQuillan Grain Company, who made the journey to comply with Danny's request. Mr. Kallaher has become a convalescent in the Rockhill Sanitarium.

Wallace Roberts, assistant to William Crane, manager of the Weighing Department, Cincinnati Grain & Hay Exchange, resigned April 1 to engage in the insurance business.

Lyman Perin, president of the Perin, Brouse & Skldmore Grain & Milling Company, has returned from New York, where he went in the interest of a new malted dairy feed the firm is producing.

M. Felss, retired Soft wheat miller of the Felss Flour Milling Company, has gone to California for a spring trip.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

THERE has been no export demand at Kansas City of importance the past few weeks. Premiums at the Gulf have been on a nominal basis most of the time and the few sales reported have not been much of a reflection of actual market conditions as they generally have involved distressed grain or distressed tonnage. Fairly liberal supplies are held at both Galveston and New Orleans, most of which is under a replacement basis, with little indication as to when there will be any demand for it.

Walter A. Hinchman, formerly with the Kemper Grain Company, has bought the Board of Trade membership of W. W. Young, formerly with Dilts & Morgan. The consideration was \$8,000, a decrease of \$2,000 from the last sale reported in the fall.

J. J. Wilson of Moran has taken over the office of chief inspector of the Kansas State Grain Inspection Department, succeeding J. S. Hart. As his first assistant he has chosen J. H. Slater of Ottawa. E. N. McCormack of Moran is warehouse commissioner. L. M. Anderson is supervisor of inspectors; P. L. Harris is assistant supervisor; Lee Brown and S. K. Barrett are supervisors of weights.

D. F. Piazzek, manager of the Kansas City Milling Company, has been elected a member of the Kansas City Board of Trade on transfer from J. B. Nicholson, formerly with the same concern.

Expectations are that liberal quantities of wheat will be delivered on May contracts in Kansas City. Elevators at present hold about 5,000,000 bushels, much of which is not of sufficiently high quality to attract milling demand. At the same time the delivery date is distant enough to alter the situation decidedly. Last year, it will be recalled, stocks amounted to nearly 9,000,000 bushels, and it was freely predicted that large tenders would be made, some expecting a new high record perhaps. Developments in the May deal at Chicago, however, upset all calculations. The attempt

to squeeze the shorts there boosted the Chicago prices above all other markets and attracted wheat from all directions. The bulk of the wheat intended for delivery here went to Chicago. Thus far there have been no indications this year that any unusual operations were under way in May.

The E. E. Roahen Grain Company has been purchased by the Wallingford Bros. Grain Company of Wichita, which maintains an office here. E. E. Roahen, former president, died recently after a brief illness.

Glen F. Hilts, assistant treasurer of the Larabee Flour Mills Corporation, has been elected a member of the Chicago Board of Trade.

H. H. Savage of the Wallingford Bros. Grain Company is an applicant for membership in the Kansas City Board of Trade on transfer from E. E. Roahen, deceased. Mr. Savage formerly was with the Marshall Hall Grain Company at St. Joseph and prior to that was in the grain business in St. Louis.

Allen Logan, Kansas City statistician, estimates that 39 counties in Kansas with a planted area of 5,220,000 acres will report an abandonment of 2,000,000 acres. The yield is estimated at 4,000,000 bushels less than last season when it was officially placed at 36,000,000 bushels. In the big eastern and central counties the outlook is decidedly more promising than at this time last year.

Kansas City received 2,581 cars of wheat in March, a decrease of 14 per cent from the February movement and 12 per cent less than a year ago. Compared with the 10-year March average, there was an increase of 30 per cent. Corn arrivals in March were substantially smaller than in the preceding month but were well over the average. Oats exceeded the average slightly. Wheat receipts on March 20 were only 32 cars, the smallest in more than three years. The reduced movement resulted from the severe cold wave the middle of the month which came at a time when most country elevators had only small supplies on hand.

PHILADELPHIA

T. A. SIEBER CORRESPONDENT

AFTER returning from a meeting of railroad representatives and shipping interests in New York, at which there was a hearing in the matter of terminal rights, N. B. Kelly, general secretary of the Philadelphia Chamber of Commerce, said the New York and New England shippers and railroad men are manifesting an unusual interest in the port of Philadelphia. "The victory in the differential case, against New England interests, apparently assured by the report of the examiner for the Interstate Commerce Commission, the speedy improvement of port facilities, have caused a tremendous awakening of interest in this port among New Yorkers, especially. They now see this city cutting into their overseas trade." Philadelphia claims the differential, first, of right, because of the actual difference on cost of the service rendered. Second, the present status should be maintained because it provides an advantageous division of traffic which could not be handled wholly at New York. Thirdly, its continuance is justified because there has been a large investment in shipping and port facilities here, made on the basis of this arrangement, which it would not be fair to disturb, even if no consideration were to be paid to the general disturbance of traffic routes which such a change would involve.

A new membership in the Commercial Exchange has been petitioned for during the past month by S. F. Collins, feed merchant.

Ellis McMullin, grain and hay merchant in this city, having spent the winter months at Miami, Stuart and Palm Beach, Fla., has returned to his office.

John O. Foering, retired chief grain inspector of the Commercial Exchange, after a six weeks visit to Bermuda, has returned with his wife to his home in Wynnewood, Pa.

Louis G. Graff, formerly president of the Commercial Exchange, was recently reported in Japan. Mr. Graff left Philadelphia on January 8 on a cruise around the world with his wife and daughter.

According to the monthly statistical report of the Commercial Exchange, the stock of grain in public warehouses in Philadelphia on April 2, was: 2,153,108 bushels wheat, 198,288 bushels corn, 788,556 bushels oats, 51,102 bushels rye and 4,525 bushels barley, compared with 2,027,632 bushels wheat, 221,049 bushels corn, 885,955 bushels oats, 39,457 bushels rye and 4,360 bushels barley on March 1 and 1,578,268 bushels wheat, 828,133 bushels corn, 171,380 bushels oats, 117,-

658 bushels rye and 2,431 bushels barley on April 1, 1922. Receipts of grain at Philadelphia during the month of March, 1923, were: 4,326,187 bushels wheat, 910,905 bushels corn, 299,490 bushels oats, 78,675 bushels rye and 1,661 bushels barley. Exports from this port during the month of March, 1923, were: 4,231,275 bushels wheat, 561,711 bushels corn, and 64,786 bushels rye.

Joseph P. Rodgers, flour jobber, has been elected to membership in the Commercial Exchange.

Levi G. West, secretary of the Quaker City Flour Mills Company, has returned to his office in this city, after a three weeks stay at Miami, Fla.

Jesse L. Shepherd, grain merchant on 'Change, has returned from a three weeks stay at Bermuda with his wife and daughter.

John K. Scattergood, grain and feed merchant, has returned to his office in the Bourse after spending the winter with his family at Pinehurst, N. C.

William P. Brazer, grain merchant in the Bourse, recently left for a stay of several months at Pasadena, Calif. The business will be conducted by his two sons, Howard F. and William P. Jr., in his absence.

The stock and fixtures of the grain, feed and hay store of Charles H. Longcope at 3724 Lancaster avenue were recently sold at auction; Mr. Longcope still retaining a similar business at 2203 Ridge avenue, Philadelphia.

Officials of the Pennsylvania Department of Agriculture have made known that the loss to this State's wheat growers this year through depredations of the Angoumois Grain Moth is estimated at \$3,000,000, which is a 100 per cent increase over 1923.

The Philadelphia Commercial Museum has received the following communications, answers to which should be made by number:

- 40600. Melilla, Morocco. "Is interested in securing the agencies of important concerns exporting flour." Correspondence in Spanish.
- 40603. Havana, Cuba. "Desires to represent grain firms in this country." Correspondence in English.
- 40613. Portsmouth, Dominica, British West Indies. "I shall be glad to be placed in communication with manufacturers or dealers of flour in your country." Correspondence in English.
- 40548. LaPaz, Bolivia. "Wish to handle the following articles as indent agents: bakers' and confectioners' tools, flour-mill machinery, feed mills, grinding mills, fanning mills, seeds." Correspondence in English.
- 40581. Constantine, Algeria. "Place me in touch with names of houses in United States engaged in the exportation and importation of cereals, wheat, barley and oats." Correspondence in French.
- 40515. Gavli Gudha, Hyderabad, Deccan, India. "Introduce us to reliable American houses who will help us in the seed line." Correspondence in English.

Effective April 3, Edgar D. Hilleary, formerly freight traffic manager, was appointed vice president in charge of freight traffic of the Philadelphia & Reading Railway Company, and Harry C. Stauffer was appointed freight traffic manager; the appointments being made on account of the death of Robert L. Russell.

The number of cars unloaded during the month of March, 1923 at the Girard Point Elevator was 2,052 wheat, 331 corn, 3 oats and 48 rye; at the Port Richmond Elevator, 407 wheat, 8 corn and 16 oats; at the Twentieth Street Elevator, 1 wheat, 17 corn, 26 oats, 2 rye, 1 barley, 1 buckwheat, 1 milo-maize and 1 peas.

Among the Chicago visitors on the Commercial Exchange floor during the past month were: William S. Dillon of the W. S. Dillon & Co., grain shippers; G. Willard Hales, president of the Hales & Hunter Company, general grain merchants and feed millers and George E. Fuller of the Fuller Grain Company.

Application has been made for a charter of an intended corporation to be called the Bloomsburg Flour & Feed Company by Paris H. Shuman, Russell L. Shuman and William B. Linville, of Catawissa, Pa.

Charles C. Snyder, aged 54 years, recently died at his home in Norristown, Pa. He was head of the flour firm of C. C. Snyder & Son in the Philadelphia Bourse, which firm was recently formed, previous to which he was connected with Rosekrans-Snyder Company, grain and feed merchants, who have been members of the Commercial Exchange for the past 16 years. He is survived by his widow and son.

John B. Nicholson, president of the Kansas City Milling Company and Harvey J. Owens, of the sales department of the Kansas Flour Mills Company were among the southwestern visitors on 'Change during the past month.

The Philadelphia Grain Elevator Company, operators of the Port Richmond grain elevator, has issued a notice that on and after April 9, they will cover by standard policy of insurance against loss by explosion resulting from hazards incident to business as conducted by them (excluded loss or damage occasioned by or incident to the explosion or rupture of steam boilers and/or fly wheels and their connections) on

all grains while in store or drier, for which a charge will be made based on the annual rate of 7.2 cents per hundred dollars of value. This, in connection with insurance on loss by fire at the rate of 25 cents per hundred dollars of value, will make the rate 32.2 cents per hundred dollars of value.

The average high and low closing prices of cash grain at Philadelphia during the month of March, 1923, was as follows: Wheat; No. 2 Red, for export, \$1.29 1/2 @ 1.34 1/2; Corn; No. 2 Mixed, for export, \$0.84 @ .87; No. 2 Yellow, for domestic, \$0.89 @ .92; Oats; No. 2 White, natural, for domestic, \$0.54 @ .55 1/2.

The Commercial Exchange will be represented at the Eleventh Annual Meeting of the Chamber of Commerce of the U. S. A., to be held in New York City, May 8 to 10, and the following gentlemen have been appointed: Wm. M. Richardson, National Councillor; Samuel L. McKnight, Substitute National Councillor; C. Herbert Bell, Delegate and James L. King, Substitute Delegate.

Effective April 8, the Pennsylvania Railroad Company issued embargo No. E-51, covering all shipments of oats destined North Philadelphia, Pa., including the Keystone Elevator Company. This embargo was issued account of the large accumulation of cars for this delivery. It is understood these shipments originate principally at Erie, Pa.

A number of "Century Old" business firms were recently honored at a luncheon of the Philadelphia Chamber of Commerce which included the Francis Perot's Sons Malting Company, Millbourne Flour Mills, The Lea Milling Company and D. Landreth Seed Company. The roll of honor is carried back to 1687, when the Perot Company was formed and which was four years after the arrival of William Penn in Philadelphia. This city feels highly honored owing to the fact that this establishment is the oldest in America.

Robert L. Russell, vice president in charge of freight traffic of the Philadelphia & Reading Railway Company, died March 22 at his home in Wyncote, Pa. He was 56 years old and had been ill since Christmas. He served the railroad company for 34 years, during which time he made many friends among the members of the Commercial Exchange. He is survived by his widow.

A committee representing the Commercial Exchange, consisting of William B. Stites, David H. White, Daniel J. Murphy and Edward Rice Jr., have returned from Baltimore, Md. and Norfolk, Va., where they have been studying grain elevator facilities. The committee brought back with them valuable information and will work with the Pennsylvania Railroad and Philadelphia & Reading Railway Companies in connection with the latter's proposed new grain elevator facilities at Port Richmond and changes at the Girard Point Elevator. The committee previously had visited elevators at Montreal.

William J. McMullin, aged 83 years, died at his home in Philadelphia, March 26. He was for many years a grain merchant in this city and has been a member of the Commercial Exchange since 1873. He fought during the Civil War with Anderson's Fifteenth Pennsylvania Cavalry. He was a director of the Ninth National Bank and Tradesmen's Trust Company and a member of the Masonic order. He is survived by a daughter, Mrs. H. Leslie Walker, and seven grandchildren.

Among the northwestern visitors on 'Change during the past month were: Reed Jones and W. P. Fisher, both of the Fisher Flouring Mills Company, Seattle, Wash.; H. E. Gooch, of the Gooch Milling & Elevator Co., Lincoln, Neb.; Walter Turle, of Turle & Co., grain merchants, Duluth, Minn.; W. B. Windsor, of the Fergus Flour Mills, Fergus Falls, Minn.; and William Fulton, representative of Shane Bros. & Wilson Company John L. McCaull, president McCaull-Dinsmore Company; A. L. Goetzman, of the A. L. Goetzman Grain Company; E. S. Woodworth, president, E. S. Woodworth & Co., grain merchants; all of Minneapolis, Minn.

According to the crop report of the Department of Agriculture, the condition of Winter wheat in Pennsylvania on April 1 was 84 per cent, compared with 92 per cent on April 1, 1922, 79 per cent on December 1, 1922 and a 10-year average of 89 per cent. The condition of rye in this state on April 1, was 89 per cent, compared with 91 per cent on April 1, 1922, 83 per cent on December 1, 1922 and a 10-year average of 90 per cent.

Supplement No. 19 to G. O. I. C. C. No. 12172, Pennsylvania Railroad tariff, provides for transit arrangements on grain and grain products applicable to and via Philadelphia on grain originating in Canada when delivered to the Pennsylvania Railroad at Buffalo. When moving through the Philadelphia Tidewater Terminal, milling in transit for export, storage or re-shipment to Boston, New York or Norfolk will be subject to a transit charge of \$3.60 per car, in addition to the rate from port of origin to destination. This new arrangement was concluded with the Canadian lines after constant efforts of the American trunk lines and millers in the West and became effective April 1.

BUFFALO

ELMER M. HILL CORRESPONDENT

MEMBERS of the Buffalo Corn Exchange who have returned from a trip of inspection to Montreal say that the city is preparing to be in better shape in the future to handle larger quantities of grain. The unprecedented movement of wheat and other grains through Buffalo, Port Colborne and Georgian Bay to Montreal last year almost swamped the terminal elevators at that port, and with the several additions to be made to the Buffalo-Montreal fleet this season by the same interests that control the Concrete-Central Terminal Elevators at Buffalo, even a larger quantity is expected to be moved in 1923.

Besides the enlargement of the Grand Trunk Elevator at Windmill Point, Montreal, to an increased capacity of 1,125,000 bushels, the Buffalo grain men were told that a new elevator will be started at Tarte Pier in the spring with a capacity of 2,500,000 bushels. It is planned to increase this capacity to 10,000,000 bushels in units of 2,500,000 bushels each. The Tarte Pier elevator will be one of the most modern fireproof structures in the world. The entire plant is designed in accordance with recently developed principles for minimizing the hazards of dust explosion. Spontaneous explosions of grain dust always have been a serious menace, but in the new plant ample precautions have been taken to reduce the danger of such explosions to a minimum. In connection with the loading and unloading facilities, there will be four traveling marine towers for unloading from lake boats and four unloading points from railway cars. Five berths will be provided for loading ocean steamships, each berth having facilities for loading 30,000 bushels of grain an hour. Receiving from cars will be at the rate of 48,000 bushels an hour from four tracks. Shipping to ocean liners will be at the rate of 120,000 bushels an hour via belt conveyors, leading to five berths, each berth being equipped with two conveyors. Receiving from lake boats will be at the rate of 60,000 bushels an hour.

Directors of the Tonawanda (N. Y.) Chamber of Commerce have started a movement to have the New York State Department of Public Works approve plans for the construction of a modern concrete grain elevator on the barge canal. With efforts now in progress to have the United States Government deepen the inner channel of the Niagara River and the Tonawanda Creek canalized, the Chamber of Commerce believes the state should undertake the construction of a terminal elevator at Tonawanda to relieve the congestion at Buffalo especially on grains to be forwarded via the state waterway to tidewater points.

One of LeRoy's industrial landmarks, the LeRoy Roller Mills, is passing. The mill is over 100 years old and is one of the pioneer milling establishments in this section of the country. The mill is a frame structure with four stories and a basement. It was constructed of heavy timbers hewn from the virgin forests and contains many thousand feet of valuable lumber. The mill was erected by Jacob LeRoy, one of the founders of the village of LeRoy and was built in 1822. The property has been acquired by the Genesee Light & Power Company of Batavia.

The Canadian Government made a profit of \$210,392, less an amount to be determined for electric power on the operation of the terminal grain elevator at Port Colborne, Ont., last year, according to official figures submitted by the elevator management to the authorities at Ottawa. Grain handled by the elevator during the year was 53,349,811 bushels. The elevator cost the Government approximately \$2,100,000, including the expense of reconstruction after the dust explosion several years ago. In reporting profits no allowance was made for interest on invested capital or for depreciation of plant, it was stated.

The Steuben Products Company, grain and feed merchants, has received a discharge in bankruptcy by Federal Judge John R. Hazel. The company has been in liquidation for two years.

Regulations which have as their object the elimination of grain dust explosions in mills, elevators and factories, were formulated at a conference of explosion experts in the Hotel Statler last month. The efforts to prevent explosions of this character are the outgrowth of the Husted Mill disaster in Buffalo 10 years ago in which more than a score of workmen lost their lives. Representatives of the Federal Government, of the grain, milling and feed industries attended the conference. Dr. David J. Price, chief of the United States Bureau of Chemistry at Washington, presided.

Nisbet Grammer of the Eastern Grain, Mill & Elevator Corporation, owners and operators of the Concrete-Central Elevators in the Buffalo Harbor and one of the dominating factors in the elevating and grain industry in Buffalo, has returned from a trip abroad where he

inspected the new grain carriers being constructed in England and Scotland for the Buffalo-Montreal route. Mr. Grammer is interested in the development of this new steamship line. While abroad, Mr. Grammer spent some time on the Riviera, Monte Carlo, Nice, Rome and other places. But let Mr. Grammer tell of his experience at Monte Carlo: "I put six francs on the red on the roulette wheel, and it came red. I pocketed my winnings and felt satisfied with my experience."

Justice Harry L. Taylor in Supreme Court has granted the application of attorneys for the defendants in 22 lawsuits of Great Lakes shipping concerns against grain and elevator companies involving upwards of \$400,000 demurrage charges, for a stay of proceedings pending an appeal from a previous order which denied the motion of the defendants for separate trials. The shipping companies want the trials consolidated. The suits are the result of the congestion in the Buffalo Harbor last fall when boats were held in port for long periods of time because there was not sufficient freight cars to keep the grain moving from the terminal elevators. Among the defendants in the action are the Armour Grain Company, the C. F. Fox Grain Company, The Grain Growers' Export Company, the Melody Grain Corporation and others.

The Collard-Meyer Company has been incorporated under the laws of the State of New York with an authorized capitalization of \$10,000 to engage in the grain brokerage business with offices in the Chamber of Commerce Building. The members of the new firm are Eugene B. Collard, Carlton J. Meyer and William C. White. All have been engaged in the grain business in the Buffalo market for years and are well known in the trade.

The winter storage fleet which has been at anchor in the Buffalo Harbor since last fall has been unloaded. There were 96 carriers when the season of navigation closed. Increased export demand for grain speeded up the unloading during the last month or six weeks and now the ships are awaiting the opening of navigation which is expected later in the month. Buffalo elevators will be well equipped to handle all the new grain that is rushed down the lakes this spring.

Plans are under way for the construction of a modern state-owned terminal elevator at Troy, N. Y. Arguments in favor of the immediate construction of an elevator at that point were presented in the New York State legislature at Albany by former Representative Peter G. Teneyck of Albany at a hearing on the project. The bill provides for an appropriation of \$300,000 to be used in acquiring land for the elevator and completing the ground work. The grain elevator would be one of 500,000 bushels' capacity. An additional appropriation of \$400,000 will be asked of the next legislature for actual construction of the elevator.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

THE first week of April brought grain receipts for Milwaukee about twice as large as for the corresponding period in either of the last two years. The actual figures show grain offerings for the first week of this month were 643 car loads compared with 749 cars the week before, 386 car loads for the same week last year and 380 cars for the corresponding week two years ago. The gain fell just a little short of 100 per cent.

However, the comparison for the last week of March was not so favorable. This revealed receipts of 749 cars compared with 373 car loads in the previous week and, 637 car loads for the corresponding week a year ago and 577 cars for the corresponding week two years ago. The supply for that week was well above receipts in the last two years, but no tremendous gain was shown.

Grain leaders of Milwaukee still report that previous conditions prevail in the trade—that the supply of grain left in the country is still large and that heavy shipments can legitimately be expected for the remainder of this crop year. However, the reports of car shortage are increasing. Whereas, the car scarcity was less acute for some time, there is now more complaint than ever of the difficulty of getting grain cars, due to the high tide of business in general, which congests grain traffic generally and causes a corresponding handicap on the grain movement.

The receipts of grain for the past week were made up of 107 car loads of barley, 250 car loads of corn, 176 car loads of oats, 54 car loads of wheat, 37 cars of rye, 6 cars of flax and 13 car loads of miscellaneous. Corn, oats and barley supply the great bulk of grain receipts, but the supply of rye and wheat is by no means lacking, considering the normal volume of offerings.

Shipments of grain for the past week are also close to the usual movement at this season of the year. The actual figures on shipments show 278,000 bushels of oats in round numbers, 251,000 bushels of corn, 43,000 bushels of barley approximately, 74,000 bushels of wheat

and 63,000 bushels of rye. This makes an aggregate of 710,000 bushels, compared with 747,000 bushels in the preceding week and 810,000 bushels for the corresponding week a year ago. These figures indicate that grain shipments at Milwaukee on the edge of the spring season, are running just a trifle under the volume shown in previous years.

The active export demand for grain has been the latest influence to send up the price of grains. The advance in the last few days on the score have ranged from fractions to about 3 cents a bushel.

Milwaukee stocks of flour at the opening of the present month are given officially at 16,000 barrels in round numbers, compared with an aggregate of 11,000 barrels a month ago, 8,000 barrels a year ago, 20,000 barrels two years ago for the corresponding date, 13,000 barrels three years ago, 13,000 barrels four years ago, and 35,000 barrels five years ago. The stocks of flour are just moderate for this season.

One of the most important projects to grain men of Milwaukee has bobbed up again, in the form of the building enterprise which was shelved some years ago. Some grain dealers have been in favor of resuscitating the building scheme, while others have thought that this was not the time to take up the matter again. In order to get the sentiment of Chamber of Commerce right up to date, it was decided to hold an exhaustive referendum. The three questions proposed related to the question of buying the present old building, continuing the lease of the old building which still has several years to run, or the third proposition of buying a new site as soon as possible with the plan to build on it as soon as building conditions become favorable.

Apparently, the overwhelming sentiment of the grain men of the city is to take the progressive step and get a new building just as soon as the conditions are right.

The vote so far indicates that the members are about two to one in favor of buying the site in preparation for the new structure. The vote as yet only includes about half the membership of 480, but no radical change from this showing is expected even if all the members had voted.

The matter of erecting a building for the grain trade has been pending for many years. The plan was all completed to have a new building and active work was being done on selecting a site, when the war and the high cost of building blocked all plans. Since that time building costs have never come down and a new lease in the meantime had to be made on the old building, this lease also carrying an option to buy the building under certain conditions.

The April rate of interest has been fixed by the Finance Committee of the Chamber of Commerce at 6½ per cent.

Milwaukee mills in the past week report a production of 2,000 barrels of wheat flour, compared with 6,700 barrels for last week and 6,500 barrels for the corresponding week a year ago. Production this year has been just about one-third of that in previous years, indicating a dull condition in the flour trade. The output of rye flour for the past week was 500 barrels as compared with 500 barrels in the previous week and 1,000 barrels for the corresponding week a year ago.

The hay market at Milwaukee has recently advanced and the quotations now rule from \$14 to \$17 per ton. No. 2 Clover Mixed sells at \$13 to \$13.50. Receipts of good Timothy at Milwaukee are extremely light and demand is very active. The medium and low grades of Timothy are still in plentiful supply and demand is not large.

The Board of Directors of the Milwaukee Chamber of Commerce went on record in favor of the daylight saving schedule. Since the city has not adopted the daylight saving plan for this year, grain men will have to adopt it independently if they want it. With Chicago on a daylight saving basis, it is anticipated that Milwaukee grain men will want to follow suit as in past years. Grain trading between the Chicago and Milwaukee markets is closely tied up, so that any other course would be difficult.

The tremendous snowstorms which hit Wisconsin late in the season are expected to be a boon for the crops of the state, according to Thomas A. Campion, superintendent of the Milwaukee County Agricultural School. The great advantage in the snow is that it covered the ground for several weeks and prevented the alternate freezing and thawing which are among the chief perils to early growing crops.

No. 3 barley has been selling in the Milwaukee market at 66 to 71 cents a bushel as compared with 67 to 69 cents a bushel for the corresponding time a year ago. No. 3 White oats has been selling recently at Milwaukee at 44 to 47 cents a bushel as compared with a ruling quotation of 34 to 37 cents a bushel for the corresponding date a year ago. No. 2 rye has been quoted recently in the Milwaukee market at 81 to 82 cents as compared with a price of 98 cents, or a shade better for the corresponding date a year ago. No. 3 Yellow corn has been moving recently in the local market at 76 to 77 cents a bushel as compared with quota-

tions a year ago for the same date of 54 to 55 cents. No. 1 Northern wheat has been selling at the Milwaukee market at \$1.23 to \$1.29 as compared with a ruling price of \$1.47 to \$1.57 for the corresponding time a year ago.

The most decisive change in grain prices is in corn, which has had an advance of 40 per cent. Oats comes next for high prices with a gain of around 25 per cent. Barley is third with a trifling gain. The declines in rye and wheat range from 16 to 18 per cent. The poor export demand is still generally blamed as one of the chief factors in the low levels which have been shown in rye quotations.

The annual dues of the Chamber of Commerce have been fixed at \$100 a year, payable in two installments of \$50 each, due semi-annually. The rules also provide for a penalty of \$5 additional for each installment which is not paid within 30 days after the time that it is due.

Lawrence H. Teweles of the Teweles Seed Company has been elected to membership in the Milwaukee Chamber of Commerce and the membership of Arthur Teweles has been transferred.

One of the oldest members of the Chamber of Commerce died recently. He was Henry C. Barnard who had been a member of the local grain organization since 1874. If he had lived until 1924, he would have been a member for 50 years. Mr. Barnard had not been doing business actively for a number of years.

Preliminary figures on the rye acreage of Wisconsin show an area of 421,000 acres. This is a cut in the crop of about 14 to 15 per cent. While no doubt farmers were discouraged by the low prices of rye for the last several months, the dry fall was blamed for the cut in area of about one sixth. Wisconsin as one of the greatest rye states in the union is one of the chief factors in the rye trade of the country. With a decisive cut in the acreage, a smaller yield and a better price is likely in the next harvest.

There is very little hope for an early opening of navigation on the lakes this year because of the great ice fields that block all channels and straits. Although insurance begins officially on April 15, there is little prospect of open waters before May 1, according to some of the best harbor experts in the city.

From all quarters come reports of the great ice fields due to the cold weather in the last half of March. Reports are also current of the probability of a big strike of lake seamen this season which may still further act as an obstacle to the prompt movement of grain early in the season.

Liberal supplies of grain on Wisconsin farms are shown by the recent reports. The stocks of corn, oats and rye on Wisconsin farms are considerably above the five-year average, while reserves of barley and wheat are said to be less than the five-year average.

The figures show that about 40 per cent of last year's oats crop is still on the farms of the state, 24 per cent of the ear corn is still on the farm, 29 per cent of the barley crop, 30 per cent of the hay crop and 28 per cent of the corn silage.

Farm stocks of oats are estimated for Wisconsin at 41,000,000 bushels, or 7 per cent above the five-year average. Stocks of rye are about 1,785,000 bushels, or 38 per cent above the average for the last three years. The supply of wheat is estimated at 691,000 bushels, or half of the average for the past five years. The supply of barley on Wisconsin farms is 4,000,000 bushels in round numbers, or one fifth less than the five-year average. About 10 per cent less than normally on hand is the situation with regard to crib corn. It is expected that hay and oats supplies are so heavy that they will be carried far into the fall of 1923.

That Wisconsin is not a great grain selling state is shown by the fact that only about 2 per cent of the corn crop and 10 per cent of the oats crop are shipped out of the county where grown. About 15 per cent of the barley and 10 per cent of last year's hay crop is shipped and sold out of the county where grown.

One of the most decisive grain rate victories won by the Milwaukee Chamber of Commerce in some years was the one just decided by the Interstate Commerce Commission at Washington, in which it was charged that Duluth and Minneapolis received preferential grain rates within the state of Minnesota and thereby put Milwaukee at a serious disadvantage. The victory was won largely by the efforts of J. L. Bowlus, manager of the Transportation Department of the Milwaukee Chamber, who has been working on the case for a long time.

The case was brought by the local grain men originally against the Burlington road, but the entire rate structure of grain and grain products was involved ultimately. In the decision the Commission ordered that the discriminating rates in favor of Duluth and Minneapolis be removed. In the second section of the ruling the Commission held that interstate rates on grain and grain products from southern Minnesota and northern Iowa to Milwaukee were unjust and discriminatory.

In the argument of the case Duluth and Minneapolis interests argued that Milwaukee had especial advantages in transit privileges. The Commission at Washington held that while these transit privileges are material

the parity of condition between the different markets must be maintained, so that the discrimination found would have to be removed.

Mr. Bowlus asserts that the ruling as given by the Interstate Commerce Commission should operate to materially increase grain receipts here. The exact effect of the decision will be known better after June 4, by which time the conditions will have to be corrected.

The Chamber of Commerce held its annual installation services one week after the annual election. This is a simple affair with a brief address by the retiring president, in this case, H. H. Peterson, also a brief talk by the incoming president, A. R. Taylor.

A. R. Taylor, one of the younger men in the Milwaukee Chamber of Commerce, known as an aggressive leader in the trade and connected with one of the largest grain firms in the city,—the Taylor & Bour-nique Company, has been elected president of the Chamber of Commerce.

If it is decided that the new building is to be pushed, members of the Chamber of Commerce know that action and good judgment can be expected under the administration of Mr. Taylor. However, grain men assert that within the next year probably not more will be done with the building project than selecting a site. This problem, too, of picking out a site, is looked upon as one of the most complex and difficult of the entire building proposition and apparently entire reliance is placed on Mr. Taylor for all such matters of administration.

A. R. Templeton was elected first vice-president, and Hugo Stolley as second vice-president. H. A. Plumb, the popular secretary-treasurer of the organization, was re-elected as a matter of course without opposition.

A. L. Johnstone, L. J. Keefe and G. W. Kruse were chosen to the Board of Directors for a term of three years. The entire Board of Directors besides the officers is now made up of L. L. Runkel, W. E. Schroeder, A. L. Flanagan, E. La Budde, Kurtis R. Froedtert and L. R. Fyfe and the three members just chosen.

The two members elected to the Board of Arbitration for two years were E. J. Koppelkam and E. S. Terry. The entire Board of Arbitration as now constituted is Charles F. Coughlin, L. J. Beck, Otto R. Sickert, E. S. Terry and E. J. Koppelkam.

The following members of the Milwaukee Chamber were chosen for the two year term on the Board of Appeals—P. P. Donahue, E. H. Dadmun and J. J. Crandall. The entire Board of Appeals as constituted after the election is H. H. Peterson, Hugo Teweles, and Messrs. Donahue, Crandall and Dadmun. Mr. Peterson was chosen to fill the vacancy caused by the resignation of A. L. Johnstone.

The treasurer of the Chamber of Commerce shows in his annual report for the past year that disbursements were about \$170,000 in all departments. In the general fund, including the transportation department, the disbursements were \$66,076 compared with income of \$58,967. This means a loss in this department of \$7,378. The weighing department showed a loss of only \$472, the receipts being \$50,415 and the disbursements \$50,887. The inspection department showed a profit for the past year of \$5,429, receipts being \$56,070 and the disbursements \$50,640. The *Doings in Grain*, the official publication of the Chamber, showed a loss of \$153, the receipts being \$4,322 and the disbursements \$4,475.

The report of the gratuity fund of the Chamber of Commerce for the past year reveals that 206 members of the association are entitled to participate. The net income from the funds was \$3,959 and the number of deaths for the year was 12, so that the widows or heirs of these deceased members will receive an average sum of \$552 each. It was proposed that those entitled to participate be paid off at the rate of \$750 each, whereas the payments in the past have ranged from \$288 to \$696. The unanimous consent of all the participating members would be necessary to carry out this plan. There are still 41 members to be heard from on this point. Members elected after the passage of such a rule would not share in the fund. Instead it would be invested in bonds and used to cut down dues as far as possible.

The grain in store at Milwaukee according to the latest report shows something like the usual spring accumulation just before navigation opens. These figures show 154,000 bushels of wheat in round numbers, 733,000 bushels of corn, 984,000 bushels of oats, 230,000 bushels of barley, and 196,000 bushels of rye.

P. B. McNail of the Wisconsin College of Agriculture has sent out a communication to Wisconsin farmers urging them to plant on a light or reduced scale. He asserts that the farmers should not try to hire labor in competition with other industries as this is not likely to pay. Plant only the grains that the family can take care of, is his advice. Prof. McNail says that the costs of planting the 1923 crop will be on an inflated price level as costs have been going up for several months. He points out however, that the crop of 1923 may have to be sold on a deflated price level. This situation, he adds, should be a strong warning to the farmers. Crops produced under inflated conditions, he asserts can only become profitable if they can be sold under the same inflated

conditions. Prof. McNail doubts very much if the present era of great business prosperity in the cities will be as decisive by fall. In other words, he thinks a slump is more than possible before fall, so that the farmer will again be in the discouraging condition of selling his crops on a declining market.

Former president H. H. Peterson of the Chamber of Commerce reports that for the last year the receipts of grain in round numbers at Milwaukee were 62,737,000 bushels and the shipments were 48,076,000 bushels. The shipments by lake were in excess of 22,405,000 bushels for the calendar year. Due to a number of causes, Mr. Peterson says, the volume of grain received was not up to normal.

A revised schedule of the membership of the Chamber of Commerce shows that, including the so-called additional members and those standing in the name of deceased members, the total memberships of the Chamber is now 422. These include 398 living members and 20 memberships of those deceased and four additional certificates.

The reports of the Weighing Department for the past year ending April 2 shows the weighing of 54,345 car loads of grain was supervised during the year. This included 35,531 car loads received at Milwaukee and 18,814 car loads which were shipped. This department also supervised the weighing of more than 16,000,000 bushels of grain and flax seed which were shipped out by vessel.

Wisconsin has been taking a keen interest in the fight to reduce the amount of lake water which is being taken by the Chicago drainage canal district. Grain men have been following this contest closely as it involves the ability to use ships at this port. From all indication the suit in the United States Supreme Court to stop any illegal diversion of waters of the Great Lakes, will be pushed with renewed vigor, so that an impartial umpire can decide whether claims made regarding this practice are true.

Milwaukee is still working on plans to co-ordinate the railroads with the new harbor being built here. A committee of 14 is to study this subject and report concrete plans for action. The Association of Commerce and the Chamber of Commerce and important bodies of engineers will be represented on this body. Probably the grain interests of Milwaukee have more at stake in this committee action than any other commercial interest. All of the principal railroads which have connections at Milwaukee will also be represented on the committee.

NEW YORK C. K. TRAFON - CORRESPONDENT

MEMBERS of the grain trade on the New York Produce Exchange, as well as in other markets here and in Europe, were greatly interested recently upon learning that a new and powerful exporting corporation had been organized under the title of Bunge North American Grain Corporation, which was supposed to take over the grain exporting business of P. N. Gray & Co., although the latter firm still remained in business. Strictly speaking, the name was the only really new thing about this organization as it was simply formed to act as exclusive representatives in the United States and Canada for the various Bunge and Bunge & Born organizations. Indeed, the president, Carlos Falk, and some of the other officers and directors were identified with the parent organizations before the Great War. The list of officers and directors is as follows: President, Carlos Falk; vice-president, Robert F. Straub; treasurer, Edward J. Haesloop; secretary, Christopher Kellner; assistant secretary, Henry J. Dahl; Directors: W. Friling, Milton M. Brown, Carlos Falk, Robert F. Straub and M. Krasznai-Crossnay.

Members of the grain trade on the New York Produce Exchange received with a great deal of interest the announcement that Nat C. Murray had resigned as Chairman of the Crop Reporting Board of the Department of Agriculture in order to become statistician and crop expert for the well known Chicago commission firm of Clement, Curtis & Co., filling the place left vacant by the death of P. S. Goodman, who made such an excellent record during the many years he was with that house.

William H. Hayward, who has made many friends on the New York Produce Exchange since he came here some months ago to take charge of the export flour and feed department of The Commercial Union of America, returned to Baltimore early this month, much to the regret of his friends here. Having become impressed by his great energy and enterprise, they were by no means astonished to hear almost immediately after his departure that he had formed a new firm for the transaction of a grain brokerage and forwarding business in Baltimore under the firm

name of Hayward & Co. For many years before coming to New York, Mr. Hayward was well known in many markets as secretary and treasurer of the C. A. Gambrill Manufacturing Company of Baltimore.

Leo Brager, who became a member of the New York Produce Exchange a short time ago in order to engage in the grain exporting business, will in addition act as representative in this market for Cross, Roy & Saunders, the old grain and provision firm of the Chicago Board of Trade.

Edwin A. Barnes, who has acted for several years as Produce Exchange representative for the old grain and hay house of Carscallen & Cassidy of Jersey City, recently severed that connection.

James A. Dawes, hay, grain and feed shipper of Highstown, N. J., who was an early April visitor on the New York Produce Exchange, stated that nearly all of the farmers in his territory had confined their attention last year to raising potatoes, but had decided to reduce their acreage to a large extent this season as they had found it almost impossible to sell their potatoes on a profitable basis. Consequently they intended to devote a larger area to the production of rye and looked forward to doing a bigger business in rye straw.

Franklin L. Lewi, the energetic and popular president of the Buckwheat Feed & Grain Corporation, who recently resigned his associate membership in the New York Produce Exchange, has been elected to regular membership.

Contrary to earlier expectations, the personnel of the large grain, flour and feed distributing corporation known as the Commercial Union of America has not been essentially altered. The only noteworthy change was that the office of manager of the export department left vacant by the departure of Wm. H. Hayward, as mentioned above, was taken by E. F. Richards, who was vice-president of the Union, although remaining in Baltimore as a member of the old grain firm of John T. Fahey & Co. Mr. Richards is already a member of the New York Produce Exchange and has come to this city to assume his new duties.

The following applications for membership in the New York Produce Exchange have been received: John A. Higgins, Jr. of Fearon, Brown & Co., importers; Wm. H. Davis of the Virginia Forwarding Corporation, Norfolk, Va.; Gerard P. Tameling of Tameling, Keen & Co., the new brokerage firm organized as a result of the re-organization of the well-known firm of Lamborn & Co.

A statistical table recently compiled by the Department of Health of New York City is of particular interest to producers and distributors of foodstuffs. This table shows the annual consumption of various foods in this great metropolis. To those who are not actively engaged in the trade it may come as somewhat of a surprise to learn that first place on the list goes to fluid milk, of which our citizens consume 1,576,254,950 pounds annually. As might be more generally expected, second place goes to wheat flour with annual requirements of 1,058,400,000 pounds, of which 900,420,000 pounds is in the form of bread. For some time the daily consumption of flour in the metropolitan district, which embraces large surrounding cities and towns such as Jersey City, Hoboken, Newark, etc., has been estimated at 20,000 barrels, some placing the figure somewhat higher. White potatoes come third with 550,249,500 pounds, followed by sugar with 519,180,000 pounds, pork 436,800,000 pounds, bananas 434,716,000 pounds and beef 346,200,000 pounds. If it seems strange that bananas come ahead of beef, it might seem equally strange that oranges are next in line with 271,200,625 pounds, then apples with 263,229,750 pounds, both being ahead of live poultry, 217,299,250 pounds, butter 117,995,534 pounds, eggs 117,593,902 pounds, and lard 115,892,756 pounds.

Many members of the local flour and grain trades, displayed great interest, not to say gratification, upon hearing recently that the Federal Government had been taking drastic steps against several Canadian millers who, it was alleged, had violated the anti-dumping law. They were charged with having sold flour in this market at prices below so-called intrinsic value, or below the figures at which similar grades were said to be worth in Canadian markets. This law, of course, was framed for the purpose of protecting United States millers and manufacturers generally from unfair or illegal competition on the part of foreign producers. It was explained, in the instance of flour, that when the flour was shipped here the shipper was required to put up a bond equal to the supposed value. In the main this was required for the very purpose of preventing violations of the law or providing a penalty in case of violations. Naturally, in having this bond the Government was in a position to collect immediately such sums as due when a violation was shown. According to common report in this market, many cases of this sort have been proven and in numerous instances the losses

to Canadian millers or shippers amounted to important sums, often 25 to 50 cents per barrel and up to 75 cents or \$1 per barrel in exceptional cases. In the aggregate it was said that roughly \$200,000 were involved, which naturally was a severe shock to those found guilty. It is fair to presume that this outcome has given domestic millers and distributors far more courage and cheerfulness for it is expected that the strict enforcement of this law will result in a decrease in the receipts of flour from Canada.

The Board of Managers of the New York Produce Exchange have elected the following applicants to membership: Paul G. Leoni and D. H. Andrae, representing Wm. H. Muller & Co., Inc., importers and exporters; Hugh R. McQueen of Milton & Co., exporters and importers; Arthur F. Eastman, of the James Stewart Grain Corporation, large grain shippers of Winnipeg and New York.

The names of the following visitors from Chicago appeared recently on the register of the New York Produce Exchange: Charles A. Johnson of C. A. Johnson, grain and stock commission merchants of Chicago and New York; Thomas M. Howell and Wm. H. Noyes, well-known grain operators; and R. Sussman, grain dealer.

"Why not grain and other products" is the gist of remarks recently current among sagacious and far-sighted members of the grain trade who have been wondering why grain and its products have been dragging so long in a narrow rut. They have shown no animation or buoyancy, prices having remained about steady for several weeks, notwithstanding the fact that there have been booms in various other staples, notably cotton, sugar, coffee, etc. Moreover, there have been booms in other lines, such as manufactures of various kinds and in the building trade. For example, it was stated that many manufacturers had been obliged to call in their salesmen because they had made such big contracts for prompt or forward delivery that they had been unable to turn out the goods fast enough to make deliveries within a specified time and in some instances they would not catch up with their orders within the next two or three months. Therefore conservative members of the grain, flour and feed trades have been wondering how soon there will be developments of a similar character in their trades. Practically every unbiased dealer realizes that prices are down to a safe basis and therefore it is the consensus of opinion that virtually no one would be astonished in case rapid advances took place. It is true that there is nothing in sight to indicate such a rise in the near future, but every experienced merchant is well aware that almost invariably such radical upturns begin with bewildering suddenness, coming totally without warning, like a bolt from the blue. It is fair to presume that practically no unbiased dealer will be sorry to see such an occurrence.

Members of the New York Produce Exchange shared in the gratification prevailing in all other markets following the announcement that their old friend John R. Mauff, for several years the able secretary of the Chicago Board of Trade, had been promoted to the office of executive vice-president, recently created by that organization in order to lift a heavy burden of responsibility from the president's shoulders. This will give Mr. Mauff a wider field for his versatile abilities and great energy and enterprise. Recently he has been directing the distribution of invitations to the presidents or heads of the various farm or grain dealers associations in order that they may visit the Board of Trade and thus arrive at a prompt and more satisfactory comprehension as to the workings of that organization and thereby bring about closer relationship between the purchaser, distributor and the consumer. Members of the trade will no doubt remember that several years ago Mr. Mauff was an active worker in behalf of the trade and particularly when he was president of the Council of Grain Exchanges.

Many members of the grain trade not only on the New York Produce Exchange, but on the Chicago Board of Trade and elsewhere were pleased to hear that their old friend Robert B. Gentles had formed a connection with McKenna & Dickey, the well known and active grain house belonging to the Board of Trade, and will represent the firm in the New York market. Mr. Gentles has had a long experience in grain and flaxseed both for domestic and export account, and having an uncommonly large acquaintances both in this country and in British markets, will undoubtedly meet with merited success in his new field.

George H. Baston, manager of the flour department of P. N. Gray & Co., Inc., sailed for Europe late in March and will visit British and Continental markets, especially in the north and in the interest of flour exportation. He expects to be gone at least two months. This disproves the original assumption that this company was going out of business entirely because it had turned over or rather turned back its grain business to the Bunge North American Grain Corporation. The latter is allied to or a subsidiary

of Bunge & Born, Ltd., of Buenos Aires. It will be remembered that the Gray company took over this business because the Bunge & Born company was put out of business by the United States Government during the war and their capital, amounting to \$600,000, was seized by the alien property custodian, which money or property has since been restored and the firm permitted to resume business.

Thomas M. Blake, head of the grain receiving and exporting house of Blake, Dobbs & Co., and the hay, feed and grain distributing firm of Thomas M. Blake, which is largely conducted by his son Frank, was back on 'Change late in March and received a hearty welcome after his month's absence, spent mainly in Florida and Cuba. Part of this time he was accompanied by Charles Schaeffer another active distributor of hay, feed, etc.

Much regret was manifested by members of the Produce Exchange and especially those in the flour and grain trade when the death was announced of Frank Wallace, age 60. His death was somewhat sudden as he had only been ill for about two weeks, primarily with pneumonia succeeded by intestinal troubles. He did not survive his brother and former partner Wilfred Wallace long, the latter having passed away in 1921. Mr. Wallace is survived by his wife and son and daughter. During his sickness his business was conducted by W. W. Patrick for many years active in the local flour trade and who was for part of the war period assistant to Colonel Tasker who was in the Wheat Export Company, formed to buy grain, flour, etc., for the allies, as head of the flour department. Mr. Patrick asserted that the family had no intention of continuing in the flour business.

TOLEDO

C. O. BARNHOUSE - CORRESPONDENT

IT HAS been announced that the Hocking Valley Railway will erect an ore unloading plant on its docks here this summer, and plans are being considered for the erection of a large grain elevator also, with a view of handling grain for export which arrives in Toledo via lake. The Hocking Valley, Nickle Plate, Clover Leaf and Chesapeake & Ohio recently came under the management of the Van Swearingen interests of Cleveland and the Hocking Valley and C. & O. give them a direct short line to the Atlantic Seaboard for the handling of export business.

John Wickenhiser, Raymond P. Lipe and John C. Husted returned recently from their Florida vacations.

F. E. Watkins, Cleveland, Ohio, D. J. Schuh, Cincinnati, Ohio, E. T. Custenborder, Sidney, Ohio, Geo. Wood, Buffalo, N. Y., and T. W. Swift, Detroit, Mich., were callers at the Toledo Produce Exchange one day recently.

E. T. Drake has been appointed superintendent of the Mennel Milling Company's plant at Fostoria, Ohio, in place of P. J. Flynn who died several weeks ago.

Mrs. Hiram A. Holdredge, wife of the proprietor of the Model Mills, Lima, Ohio, died a few days ago.

John H. Vocke, a former miller and grain dealer of Napoleon, Ohio, died at the home of his daughter in Toledo on March 17, after a long illness. He was buried at Napoleon.

At a meeting of the Ohio Industrial Traffic League held in Columbus late in March, L. G. Macomber, traffic commissioner of the Toledo Produce Exchange, was re-elected president.

The new seven-story addition which the Kasko Mills, Inc. is erecting on the East Side nears completion and will soon be ready for occupancy. The machinery is being put in place at the present time.

The Northwestern Ohio Farmers Grain Dealers Association held their April meeting at Rudolph, Ohio, Monday evening, April 2.

Walton E. Stone, of The Churchill Grain & Seed Company wears a broad smile these days. It's Grandpa Stone that he is. The stork paid a visit to the home of his son, Dr. Wade W. Stone, a few days ago and left a son.

The Tri State trade trip through southern Michigan, northern Indiana and northern Ohio will leave Toledo May 15 and last three days. Members of Toledo grain and seed firms will participate in the trip.

Recent out-of-town visitors were: E. G. Craun, Tiffin, Ohio; Frank Woods, Chicago, Ill.; A. T. Ward and J. L. Cruickshank, Fostoria, Ohio; J. W. Simmons, Sidney, Ohio; Chas. Johnson, Chicago, Ill.; Chas.

Bailey, Montpelier, Vt.; H. H. Deam, Bluffton, Ind.; Fred Smart, New York; Wm. Cutler, Adrian, Mich.; Edgar Thierwechter, Oak Harbor, Ohio; S. L. Rice, Metamora, Ohio, and D. J. Lloyd, Waterville, Ohio.

John L. Weiser, the genial manager of the hay department of the Raymond P. Lipe Company, underwent an operation at Toledo Hospital April 10 for the removal of his right foot which was injured several years ago and has been troublesome ever since. His many friends on the Exchange here regret that this was found necessary but are glad to hear that he is getting on all right and will be back at his desk in a few weeks.

State Senators Farnsworth and Gifford of this district gave the Produce Exchange a call on March 28. They held a hearing before the Legislative Committee of the Exchange on the co-operative marketing bill which was before the Ohio Senate at that time and which was passed with a few changes which are understood to have eliminated the most objectionable features of the bill.

The Larowe Milling Company, who have a plant at Rossford on the South Side, called their employees into conference recently and considered the matter of instituting a bonus system for their workers, hoping thereby to put the plant on a more efficient basis by which both the owners and employees would reap a benefit through increased output and more pay.

The grain laden vessels which wintered in the Toledo Harbor have all been unloaded and have loaded up with coal preparatory to making the trip to the Northwest as soon as the ice clears from the Upper Lake regions.

GRAIN NEWS FROM BOSTON

BY L. C. BREED

The White Star Line has resumed sailings from the port of Boston.

Following the visit paid to Troy, N. Y., by the Mayor of Boston, railroad officials and members of the Chamber of Commerce, interest in the proposition to establish a grain elevator and storage warehouse at Troy as a part of the New York Canal terminal, has steadily increased.

James C. Davis, Director General of the United States Railroad Administration, recently made an address before the Traffic Club of New England on "The Problem of National Railroad Transportation."

N. A. Viloudaki of Viloudaki & Co., Shanghai, one of the large Chinese export houses, was a recent visitor at the Chamber.

The final hearing on the railroad differential will take place in Washington next summer. Leading members of the Chamber have for many months been giving a part of their time to secure for Boston what they term a "square deal." In former days, concessions in ocean rates on grain out of this port wiped out, most of the time, the higher railroad tariff from the West.

The marked decline in mill feed is expected to be accelerated with the opening of spring and the improvement in pasturage. The great increase in the use of motor trucks added to the already large adoption of pleasure automobiles, has been seriously felt in the grain and feed trade, although some compensation is found in the increase in the demand for grain by the dairy interests.

Beaver Brook Grain Company, Waltham, Mass., has been incorporated with a capital stock of \$25,000. The incorporators are Frank J. Ludwig and Monroe J. Lorimer of Boston, and Franklin W. Perry of Lynnfield Center.

Receipts of hay continue liberal, prices easy except on top grade hay. Demand is slow and the trade only meeting pressing wants, as heavier receipts and lower prices are anticipated in the near future. Shippers, however, are reported to be firm in their views. Rye straw is ruling firm under light offerings.

Among the visitors on the floor during March, who came from distant points, were the following: E. B. Floyd and M. F. Hunt of Chicago; Alan D. Drake of Oswego, N. Y.; Theo. F. Ismert of Kansas City, Mo.; J. A. Walter of Buffalo, N. Y.; John Antoine of Milwaukee, Wis.; H. F. Gooch of Lincoln, Neb.; Wm. J. Brewer of Lockport, N. Y.; J. A. Saenz of Monterey, Mexico.

The leading seed houses of the city report trade holding up well, and sales much ahead of last year.

Boston feed dealers are not much concerned over the efforts in certain farming territory to promote co-operative buying of grain and feed. Even the start that has been made in that direction is largely owing to many country dealers continuing the practice adopted

in the war period of buying small lots. Such trading brings about a higher cost and has not been warranted by the conditions which have prevailed since the restoration of normal times. These dealers have "seen a light" and have resumed buying in car lots.

BALTIMORE TRADE NOTES

BY ROBERT C. NEU

The name of Franklin L. Lewi, president of the Buckwheat Feed & Grain Company, Produce Exchange, New York City, is posted for membership in the Baltimore Chamber of Commerce.

E. F. Richards, president of John T. Fahey & Co., Inc., grain exporters of Baltimore, has resigned as chairman of the Traffic Committee of the Baltimore Chamber of Commerce, due to the fact that on April 1 he assumed charge of the grain department of the Commercial Union of America, Inc., 25 Broadway, New York City.

Robert N. Collyer, of New York, chairman of the Traffic Committee of the Trunk Line Association, and one of the best known rate experts of the country, addressed the members of the Traffic Club of Baltimore at a dinner at the Emerson Hotel on the evening of April 3. His topic was: "Competition as an Element in Railway Rate-Making."

The annual auction sale for choice of grain sample tables on the floor of the Baltimore Chamber of Commerce took place on April 2. The first choice went to Messrs. E. Steen & Bro., grain merchants.

Exports of wheat from the port of Baltimore during the month of March, 1923, were 2,185,910 bushels, compared with 1,883,523 bushels shipped in the same month last year.

Claude E. Clifton, a well known millers' agent of Washington, D. C., and Baltimore, Md., sustained a concussion of the brain by falling upon the marble floor in the lobby of the Southern Hotel, Baltimore, on the afternoon of March 23, and for four days thereafter he lay unconscious in the Mercy Hospital, Baltimore. Early in April his condition showed improvement and he was removed to his home in Washington to further recuperate.

The Commercial Union of America has acquired a majority interest in the grain exporting of John T. Fahey & Co., Inc., Baltimore, Md., and E. F. Richards, president of John T. Fahey and vice-president of the first-named company, will assume charge of the grain department of the Commercial Union of America, Inc. The Baltimore office of John T. Fahey & Co., Inc., will be maintained, as heretofore, for the purpose of handling shipments originating in the interior and destined to the Baltimore market.

The contract for building the new \$3,000,000 B. & O. Elevator at Locust Point, was awarded on April 11, to The M. A. Long Company of Baltimore. The John S. Metcalf Company of Chicago are designing engineers on the project, and L. A. Stinson of Chicago is consulting engineer.

NEWS FROM NORTHERN OHIO

BY T. J. CUNNINGHAM

George F. Leingang, former assistant secretary and traffic manager of the Sandusky Chamber of Commerce, returned to the organization as secretary-manager on April 1.

At Bowling Green, Ohio, C. G. Helby, hardware merchant, has bought the chicken feed and remedy stock store of G. C. Wagner.

E. T. Drake was appointed superintendent of the Fostoria plant of the Mennel Milling Company, March 15. Mr. Drake has been acting superintendent since the death of the late P. J. Flynn.

Many thousands of acres of land have been plowed in Marion County this winter, the farmers using tractors.

The will of John H. Vocke, Napoleon, who died in Toledo, March 17, has been probated. Lawrence J. Vocke is given a half interest in the mills and elevators at Napoleon. It is estimated that Mr. Vocke's estate is worth about \$350,000.

R. D. Sneath, of The Sneath-Cunningham Company, Tiffin, arrived home March 19, after spending the winter at Miami, Fla.

Fremont Ambrose, 69, engineer for the Wellington (Ohio) Milling Company, is in a serious condition in Memorial Hospital, Elyria, as a result of sustaining a fractured skull and a broken hand when he was caught in an engine belt and hurled.

A new county agent will be selected by Seneca County Farm Bureau officers within the next few weeks. The new agent is to take the position recently vacated by

George O. Reed, who was forced to resign on account of illness. Secretary H. W. Tomb is acting as agent at present. The Farm Bureau applied to the county commissioners for additional room in the court house for offices; but the request will probably have to be denied because of lack of room, commissioners said.

Charles Eckels, Fostoria, has taken office as Seneca County sealer of weights and measures, succeeding Frank S. Arbogast.

The first coal of the navigation season was loaded at the Pennsylvania docks, Sandusky, March 29. It was put aboard the SS. A. W. Osborne, which wintered there.

Farmers of Marion County report a serious shortage of farm labor.

Henry Ford is negotiating for the water rights in the Sandusky River at Tiffin, the power to be used in operation of a plant for the manufacture of Ford auto accessories. The water rights are now owned by Frank W. Bacon, owner of the Pioneer Mills, whose dam is at the north end of the city.

Earl Ash, of the elevator firm of Ash & Ash, Amsden, was elected trustee of the Fostoria lodge of Elks at a special meeting recently.

Oats sowing in the vicinity of Continental, was begun during the week of March 26.

Edward Stalter, Spencerville, has been elected president and Carson Mertz, secretary of the Allen County Farm Bureau.

Rosenbaum Bros., Chicago, who for many years have controlled the B. & O. grain elevators, docks and terminals at Sandusky, Ohio, have surrendered their lease on the property.

A. A. Cunningham, president of The Sneath-Cunningham Company, Tiffin, has been re-elected president of the Citizens' Building & Loan Association.

John W. Eply, Deal, has been elected president of the Hardin County Co-operative Elevator Association.

Miller City reports wheat crop in that vicinity nearly ruined, as a result of recent cold snap, and some of the farmers sowing oats instead.

The firm of True & Hopfinger, Port Clinton, has been dissolved and the business taken over by E. M. True.

According to S. B. Stowe, Marion County farm agent, cold weather and high winds have done much damage to wheat in that section.

The outlook for the adoption of the central route, through Tiffin, for a Great Lakes-Ohio River canal is bright, according to Col. Edward Orton, Jr., president of the Columbus Chamber of Commerce.

The seed corn situation in Ohio this spring appears exceptionally good, according to Wallace Hanger, crops specialist of Ohio State University.

Farm bureau officials claim that farmers in all sections of the state have reported material savings through the co-operative method of purchasing fertilizer, and that the combined spring and fall orders of Ohio last year ran greater than 40,000 tons.

The growing wheat in this territory shows slight traces of damage in spots, but in a general way it is in very good condition. A trip, extending through Seneca, Wyandot, Marion and Crawford Counties, made on April 10, revealed the wheat in Wyandot and Marion Counties as not showing up so well, while that in Crawford and Seneca Counties appeared very good in contrast. The early-sown wheat seems much the best, and except for being "brown" in spots, is greening up nicely. It is still too early to be able to determine whether the wheat in these brown spots has been permanently damaged. More or less of this appears every year at this time, and much of it eventually comes out all right. The acreage is about normal.

On this trip farmers everywhere were busy plowing, but not one oats drill was observed during the whole trip. Inquiry brought out the fact that a few fields had been sown in Marion County, but in a general way the farmers are behind with their oats seeding. Indications, however, point to considerable of this work being done during the week of April 9 to 14.

Farmers are not making any great rush to dealers for grass seeds, but instead a great many of them reserved sufficient of their own raising, and also in many instances were able to supply their neighbors.

There has been a rather generous movement of wheat from farms since the first of April, and in certain sections of this territory quite an amount has been held back; but should weather conditions prove favorable for the growing crop, this reserve will come to market before long. So much feeding has been done during this winter that the movement of corn and oats has been very much restricted and corn especially comes in in very straggling quantities.

ASSOCIATIONS

CONVENTION CALENDAR

April 17-18. Western Grain Dealers Association, Sioux City, Iowa.

April 25-26. Missouri Grain Dealers Association, Coates House, Kansas City.

May 15-16. Illinois Grain Dealers Association, Hotel LaSalle, Chicago.

May 22-23. Oklahoma Grain Dealers Association, Oklahoma City.

May 25-26. Texas Grain Dealers Association, Fort Worth.

June 8-9. American Feed Manufacturers Association, St. Louis, Mo.

June 20-21. Ohio Grain Dealers Association, Cleveland.

June 27-29. American Seed Trade Association, Atlantic City, N. J.

July 24-26. National Hay Association, West Baden, Ind.

October 1-3. Grain Dealers National Association, Des Moines, Iowa.

GRAIN GROWERS ELECT

At a two-day session of the Board of Directors of the U. S. Grain Growers, Inc., held at Chicago, March 26 and 27, Harry L. Keefe of Walthill, Neb., was elected president; Eugene Funk of Shirley, Ill., vice-president; J. M. Mehl of Chicago, secretary and acting treasurer. The Executive Committee consists of Harry L. Keefe; R. A. Cowles of Bloomington, Ill.; and T. I. Ferris of Pleasant Hill, Ind. Marshall P. Hill of Francisville, Ind., president of the Indiana Farmers Grain Dealers Association, was elected a director in place of John G. Brown, resigned.

No statement of specific activities in the near future was forthcoming, except that of the general policy of completing marketing organization to effect orderly marketing.

SCALE MEN MEET

The eighth annual meeting of the National Scale Men's Association was held at the American Annex Hotel, St. Louis, Mo., on March 19, 20 and 21, 1923. The program was large and varied, and included addresses by presidents of two large scale manufacturing firms, terminal grain weighmasters and grain inspectors, railroad officials and scale inspectors, Federal and state inspectors of weights and measures as well as representatives of the many industries interested in accurate weighing and reliable weighing machines.

New officers chosen were, J. A. Schmitz, Chicago, Ill., weighmaster of the Chicago Board of Trade, president; A. Malstrom, chief scale inspector, Atchison, Topeka & Santa Fe Railroad Company, vice-president; A. G. Zeibel, scale manufacturer, Dallas, Texas, secretary and treasurer.

Chairman of Executive Committee, P. D. McFarlane, Minnesota Track and Hopper Scale Department.

NORTH DAKOTA MEETING

At the annual meeting of the Farmers Grain Dealers Association of North Dakota, held at Minot on March 21 and 22, all the former officers were re-elected. They are: President, R. F. Gunkelman, Fargo; vice-president, George Knauss, Hannaford; secretary-treasurer, P. A. Lee, Grand Forks; directors: first district, Ole Serungard, Devils Lake; second district, L. H. Palmer, Hurdsfield; third district, Julius Johnson, Battleview, and C. A. Schulz, Noonan.

About 340 delegates were present and all enjoyed the addresses made by C. E. Austin, manager of the state mill and elevator at Grand Forks; Robert Black of the U. S. Department of Agriculture; Donald G. Conn of Washington, D. C.; F. H. Higgins of Minneapolis; A. H. Benton of Fargo; E. F. Stevens of Glove; M. L. Pruett of Pettibone, and others. At the meeting the Association amalgamated with the Grainmen's Union giving a total membership of 1,000.

Resolutions adopted urged a reduction in commission charged by terminal concerns; recommended eliminating of bulkhead charges; recommended support of the North Dakota Crop Improvement Association; urged a reduction in the cleaning-in-transit rates; directed officers of the Association to oppose proposed increase in rentals on railroad sites; expressed belief that the Northwest is handicapped by not having a member on the Interstate Commerce Commission, and expressed the Association's intention to seek a man for such an office, and protested against measures introduced in the Minnesota state legislature, de-

signed to compel marketing agencies to publish reports on the sales of grain which are made. The meeting ended with a fine banquet.

WESTERN HAS INTERESTING PROGRAM

The Western Grain Dealers Association which meets at Sioux City, Iowa, on April 17 and 18, has a program of unusual interest, and practical speakers who can discuss their various subjects in a manner which will add materially to the knowledge of grain dealers.

President T. C. Edmonds of Marcus, Iowa, and Secretary George Welis of Des Moines, can be depended upon to give something of value. Presi-

TRANSPORTATION

BARGE LINE COUP DE MAIN

Secretary of War Weeks, after being advised by the Department of Justice that Edward F. Goltra, Democratic national committeeman from Missouri, had violated the contract under which he acquired possession of 19 barges and 4 towboats from the Government several years ago, ordered the equipment seized. Col. Ashburn, chief of the inland waterways service of the War Department, went to St. Louis and got possession of part of the fleet before Goltra obtained a restraining order from a Federal judge in St. Louis.

Secretary Weeks said Goltra had not complied with the terms of the contract and that he should be compelled to give up the vessels. He said the vessels would be used to the best advantage possible on the Mississippi.

STEAMER RESPONSIBLE FOR DOCK WHILE LOADING

When a vessel is moored at a wharf and is using the facilities provided by the owner of the wharf for mooring, those facilities are in possession of the vessel and its owner and the latter is responsible for their safety, the Supreme Court of the State of Washington decided last week in the case of the Alaska-Pacific Steamship Company vs. the Sperry Flour Company.

A longshoreman who through a defect in the approach to a dolphin to which one of the steamship company's vessels was moored while loading at the Sperry dock in Tacoma, fell to the rocks below and was injured, recovering in Federal court against the steamship company. The latter sought to recover from the Sperry company but on the theory that the steamship company, during the period of use, was temporarily the owner of the dolphin and responsible for its safety, recovery was denied.

INCREASED GRAIN RATES NOT JUSTIFIED

Increased rates on grain and grain products, and on Alfalfa meal, have been condemned as not justified, in a report on I. and S. No. 1695, grain, grain products and feeds from western points, Cairo, Ill., and Memphis, Tenn., to Mississippi River crossings, related points and points east thereof, the schedules being ordered to be canceled not later than April 24. The proposed higher rates would have applied from points in Colorado, Nebraska, Kansas, Oklahoma, Texas and southern Missouri to Memphis, New Orleans and other lower Mississippi River crossings and related points. The schedules were filed to have become effective November 25, 1922. Increased rates were also proposed on the same commodities from St. Louis, Cairo and Memphis to Lake Providence and St. Joseph, La., and from Texas points to Little Rock, Ark., and points grouped therewith, but the respondents, the Commission said, withdrew those proposals both at the hearing and on brief.

NEW YORK BARGE LINE AND THE N. Y. C.

Alleging that the New York Central has refused to interchange traffic with the Erie Basin Barge Canal public terminal in Buffalo, the State of New York and Edward S. Walsh, superintendent of public works of the State of New York, have filed a complaint (No. 14,777) with the Commission against that carrier. The state seeks an order requiring the New York Central to interchange traffic.

It is averred that the state has spent about \$150,000,000 in the construction of its barge canals

running from Albany to Tonawanda, and from Whitehall to Waterford, and from Syracuse to Oswego, and from Geneva to Montezuma, and connecting with the Great Lakes, Hudson River, Lake Champlain and the Finger Lakes. It is further averred that the state has spent about \$23,000,000 in the construction of 57 canal terminals.

After describing the Erie Basin Terminal in the Buffalo Harbor, the complainants say the New York Central affords the only means of interchanging traffic between the terminal and the New York Central and other carriers. The state carried the matter to the courts but lost on the ground that the state commission was without authority to issue an order because the subject at issue was under the jurisdiction of the Interstate Commerce Commission. The complainants ask that the defendant be required to interchange traffic, to furnish the necessary rolling stock, and to establish proper rates for such service.

MINNESOTA GRAIN RATES

In a report on No. 13516, Chamber of Commerce of the City of Milwaukee vs. Chicago, Burlington & Quincy et al., opinion No. 8318, 78 I. C. C. 110-22, written by Commissioner Campbell, the Commission held the intrastate rates on grain and grain products within the state of Minnesota, from points on the line of the Chicago, Milwaukee & St. Paul, to Duluth, unjustly discriminatory against interstate commerce and ordered the discrimination to be removed not later than June 4, by the publication of rates within the state on the same level as the rates over interstate routes to Duluth.

The Commission said the interstate rates on grain and grain products from points on the lines of the defendants in southern Minnesota and northeastern Iowa to Milwaukee were reasonable and not in violation of the aggregate-of-intermediates provision of the fourth section, except in certain instances in rates via Winona to Milwaukee. It said they should be removed.

RAILROAD BUSINESS PROSPECTS

From 20 to 30 per cent more business on northwest railroads in the next three months than in the corresponding months of 1922 is predicted in the reports of the committees upon various commodities at the first normal meeting of the new Northwest Regional Advisory Board, held recently at Minneapolis. Each committee outlined the prospects for the shipment of the commodity assigned to it, and estimated the number of cars which the railroads should supply.

The advisory board is the first of several to be formed under the auspices of the American Railway Association. It is a body of shippers representing all commodities, and it surveys the prospective movement of goods through its committees, and then correlates the demands for cars into one request upon the railway association.

There are 101,125 cars of grain to be shipped in the four Northwest States, according to the chairman of the Committee on Grain. There is grain to fill 45,271 cars in country elevators now, and to fill 55,854 cars on the farms. North Dakota has 20,531 carloads in stock in country elevators. The report gives the grain shipping prospects by railroads.

The Minneapolis mills will need 24,500 cars in April, 22,500 cars in May, and 23,000 cars in June available for Minneapolis-Chicago lines. These amounts are about 20 per cent more than those of 1922.



CANADA

A new concrete dock is being built for the Fort William Elevator Company of Fort William, Ont.

The Saskatchewan Co-operative Elevator Company is increasing the total capacity of the elevator at Port Arthur, Ont. Work is to be commenced at once.

The Brooks Elevator Company, Ltd., of Fort William, Ont., of which Thomas O. Cliff is resident manager, has been authorized to use \$90,000 of its capital to carry on business in the Province of Ontario.

Early this spring, construction will start on the first 2,500,000-bushel unit of Elevator No. 3 at Montreal, Que., which when completed will have a capacity of 10,000,000 bushels. The cost of the first unit will be \$2,347,000 and will be met from a Dominion Government Loan of \$5,000,000 approved last June.

SOUTHERN AND SOUTHWESTERN

The capital stock of the Port Arthur (Texas) Grain Company has been increased from \$1,500 to \$2,000.

M. L. Hughlett is now in possession of the Claude, Texas, elevator and mill which R. D. Baker recently traded in.

The Probst Elevator at Beaver, Okla., which has been closed for a few weeks is now under the management of John Beauchamp.

A 100,000-bushel elevator addition is to be erected to the plant of the Ponca City Milling Company of Ponca City, Okla. D. J. Donahoe, Jr., is manager. The contract has been let.

C. D. Brown and C. R. Barnes have consolidated their grain and flour business at Del Rio, Texas, and will operate under the firm name of San Felipe Flour & Grain Company.

A half interest in the grain business of R. F. Collier at Paris, Ky., has been purchased by William Redmon of North Middletown, Ky., and hereafter business will be conducted as Collier & Co.

Capitalized at \$10,000, the L. A. Thornton Seed & Grain Company has been incorporated at Memphis, Tenn. The incorporators are: A. W. Whitaker, J. H. George, J. B. Bailey, A. G. Thornton and Edward F. Barry.

G. E. Porter of Buffalo, Okla., is the new manager of the Farmers Co-operative Elevator Company of Hopeton, Okla. He was for some time manager of the flour and grain business of the Alva Roller Mills, Buffalo.

The Oklahoma Wheat Growers Association is considering the purchase of the elevator of the Gresham Flour Mills Corporation at Guthrie, Okla. The property is now in the hands of the Oklahoma State Banking Commission.

The Chapman Milling Company of Sherman, Texas, of which Richard and George F. Chapman are the owners, is interested in making extensive improvements on its elevators at Hale Center, Happy and Stratford.

A wholesale grain, feed, mill products and packing business is to be conducted at San Marcos, Texas, by W. W. Martindale and C. F. Andrews. They occupy the house used formerly by the W. E. Smith Wholesale Company.

A wholesale business in grain, feed, flour, etc., is to be conducted at Crowley, La., by the Crowley Grain & Commission Company, a combination of the Crowley Grain & Commission Company and C. C. Lyons & Son, coffee roasters.

A state charter has been granted the Randels-Feuquay Grain Company which succeeds the W. M. Randels Grain Company at Enid, Okla. Its capital stock is \$100,000. W. M. Randels, J. M. Worcester and Edward T. Fleming are interested.

J. W. Adams and J. H. Webb have purchased the property of the Shepperd Grain Company at Blytheville, Ark. Mr. Adams has been with the concern for four years. The name has been changed to that of the Blytheville Feed & Coal Company.

The capacity of the Enid Milling Company's storage house at Enid, Okla., is to be increased from 40,000 to 240,000 bushels by the erection of an addition. The warehouse will be erected on the site of the old A. E. Stephenson grain elevator.

Articles of incorporation have been filed by the Blue Grass Elmerdorf Grain Corporation of Lexington, Ky., capitalized at \$200,000. The firm has been

doing a business as the Blue Grass Commission Company, and handles grain, coal, lime, cement, sand and building materials. W. B. Talbert, W. B. Talbert, Jr., and M. C. Talbert are interested.

The name of the J. C. Mytinger Grain Company of Wichita Falls, Texas, has been changed to that of the Mytinger Milling & Grain Company, effective April 1. The company is installing machinery for the manufacture of a complete line of poultry and stock feeds.

The Goodman Grain & Elevator Company, with A. B. and M. E. Goodman in charge, has taken over the plant of the recently liquidated Texas Grain & Elevator Company at Houston, Texas. The company will manufacture steam cooked molasses feeds and chicken feeds and handle a complete line of grain.

A 10,000-bushel elevator is to be erected at Olney, Texas, for the Wichita Mill & Elevator Company of Wichita Falls, Texas. The machinery will include a 10-horsepower Fairbanks Morse Type "Z" Engine, five-bushel automatic scale, all steel manlift and non-chokable elevating leg of 1,500 bushels' per hour capacity.

THE DAKOTAS

H. C. Scheer & Son are succeeded at Hamberg, N. D., by the Minnekota Elevator Company.

The Ree Valley Farmers Co-operative Association is to erect a new elevator at Orient, S. D.

A new coal shed is being built to the property of the Farmers Grain Company of Devils Lake, N. D.

A new truck dump and a 22-foot scale are being installed in Henry Reiner's elevator at Leola, S. D.

The Great Western Elevator at McHenry, N. D., has been purchased by the Farmers Equity Elevator Company.

The Co-operative Elevator Company is to improve its elevator at Gackle, N. D., and equip it with a new cleaner and scale.

J. H. Creighton is succeeded as manager of the Farmers Union Elevator at Wessington Springs, S. D., by Reuben Butz.

Improvements are to be made to the elevator of the Rockham Farmers Elevator Company of Rockham, S. D., costing \$2,000.

The elevator of the A. H. Betts Elevator Company at Chester, S. D., is now controlled by the Chester Farmers Elevator Company.

A new flax cleaning machine has been installed in the elevator at Prosper, N. D., operated by the Prosper Farmers Elevator Company.

The Siberg Bros. and Craig Elevator at Alpena, S. D., has been purchased by Mason Smith. He will take possession of the house on May 1.

The interest of C. B. Nupen in the Hazen Grain Company, Hazen, N. D., has been purchased by M. J. Pridt who is now sole owner of the plant.

Glen A. Gray is with the Mandan Farmers Elevator Company of Mandan, N. D., as business manager. He succeeds his father who died early this year.

Repairs have been made to the Nelson Elevator at Tioga, N. D., which was recently damaged by fire, and operations have again been resumed by the owner.

Walter Lindemann is now manager of the Farmers Co-operative Elevator at Bantry, N. D. The former manager, John Norris, resigned because of ill health.

A new 10-ton Fairbanks Dump Scale and truck dump are being installed in the elevator of the Farmers Elevator Company at Craven (Ipswich p. o.), S. D.

The warehouse of the Grain & Implement Company located at Fingal, N. D., has been taken over by the Atlantic Elevator Company and is now being operated by it.

Stockholders of the Farmers Grain & Livestock Company of LaBolt, S. D., have made arrangements for the rebuilding of their elevator which was burned a short time ago.

Farmers through Louis Jentz have purchased the property of the Farmers Grain & Seed Company of Mantador, N. D. The company will reorganize and continue in business.

A 25,000-bushel elevator is under course of construction at a siding near Lehr, N. D., by Fred Ziegenhagel and Jacob Feichtner. The elevator

will have 12 bins, one leg, a Fairbanks Dump Scale and a 10-horsepower engine. The contract has been let.

The Selby Equity Exchange is to install a new 10-ton dump scale, and a truck dump, a 1,500-bushel automatic scale and new motors at Selby, S. D.

A new boot tank and other new machinery are being installed for the Farmers Co-operative Elevator Company of Litchfield, N. D. Other general repairs are being made.

IOWA

The Soldier Elevator at Ute, Iowa, is to be conducted by B. J. Hedum.

Theodore Long is the manager of the Farmers Elevator at Thorton, Iowa.

The J. C. Shaffer Grain Company has moved from Charles City, Iowa, to Mason City, Iowa.

E. B. Wingate succeeds Frank Mead as manager of the Farmers Elevator at Hamburg, Iowa.

The Farmers Elevator at Bristow, Iowa, is to be conducted under the management of Elmer Hershey.

The Ed Mann Elevator at Hartley, Iowa, is being remodeled and equipped with dumps, motors, chain drives, etc.

The capital stock of the Farmers Elevator Company at Ute, Iowa, is to be increased from \$25,000 to \$50,000.

Edward Hadacek has been employed as manager of the Farmers Elevator Company operating at Clutier, Iowa.

The Osage Equity Shipping Association at Osage, Iowa, is to be taken over by the Osage Grain & Supply Company.

Paul Williamson is succeeded as manager of the Farmers Elevator Company at Primghar, Iowa, by Charles Speaker.

The Quaker Oats Company of Chicago, Ill., has purchased the Jefferson, Iowa, elevator of the Armour Grain Company.

The Farmers Grain Company of Nevada, Iowa, has sold its elevator to the Clark Brown Grain Company of Des Moines.

The Johnson & Lundahl Elevator at Madrid, Iowa, has been taken over by Arthur McCabe, who purchased it several months ago.

Isadore Steiert succeeds Ralph Hall as director of the Garwin Farmers Elevator Company of Garwin, Iowa. Mr. Hall resigned recently.

H. J. Shaffer has resigned as manager of the Trans-Mississippi Grain Company at Castana, Iowa, and on April 1 moved to Hooper, Neb.

The Farmers Elevator Company operating at Lakota, Iowa, will probably be dissolved and a new company organized under a co-operative plan.

The plant of the Stokely Grain Company at Woodward, Iowa, is being remodeled and a new elevator leg, Western Sheller, and cleaner are being installed.

Sam Robinson is succeeded as manager of the Farmers Union Elevator Company at Bedford, Iowa, by R. R. Pollock. He takes up his new duties April 1.

The elevator and grain business of the Brenton-McColl Company at Dana, Iowa, has been purchased by the Stokeley Grain Company of Des Moines.

The interest of John O. Larson in the grain and coal business which he and C. E. Glaman have been conducting at Jewell, Iowa, has been purchased by Mr. Glaman.

George Snedecor is now manager of the Farmers Elevator Company at George, Iowa, where he succeeds the late E. C. Bergfield. He has been manager of the Farmers Elevator Company at Delmont, S. D.

The Wagner Grain Company of Enterprise, Iowa, is to install in its elevator considerable new machinery including a 20-horsepower Fairbanks "Y" Engine, Western Sheller, Fairbanks Wagon Scale and Wagon Dump.

A controlling interest in the Hubbard Grain Company's elevators at Rudd, Iowa, has been purchased by Mr. Cliff who for years was manager of the Farmers Exchange there. The firm name has been changed to that of the Rudd Grain Company.

Z. Steele, for the past three years manager of the Farmers Co-operative Elevator at Bridgewater, Iowa, tendered his resignation to the Board of Directors

the second week of April and left immediately for Page Center, Iowa, where he has purchased an elevator, lumber and livestock business.

The truck and equipment of M. G. Fry, who has operated a feed and flour store at Grinnell, Iowa, for 11 years, have been sold by him to the Farmers Elevator Company.

A 40,000-bushel annex is to be erected to the elevator of the J. B. Adams Grain Company of Lake City, Iowa. The foundations will be of concrete and will consist of six cribbed bins which will be covered with galvanized iron siding and asbestos roofing.

OHIO AND MICHIGAN

J. S. Snodgrass is succeeded as manager of the elevator at Arcadia, Ohio, by Delmar Moots.

The Koch Grain Company of Hicksville, Ohio, has been sold out to the Hicksville Grain Company.

The elevator of the West Mansfield Elevator Company at West Mansfield, Ohio, has been leased by William Gilbert.

The John Smith Company of Arcanum, Ohio, has purchased the lots on which the elevator of Ammon & Son stood and will build an elevator there at once.

George J. Diebold is to erect a grain elevator at West Branch, Mich., on the site now occupied by a small grain building. The contracts were awarded.

Neither the mill nor the elevator of the Williams Milling Company at Columbus, Ohio, is being operated at present. The elevator has a capacity of 50,000 bushels.

The C. C. Toland Elevator at Anna, Ohio, has been purchased by the Anna Farmers Exchange Company. The firm will use it for storage and merchandise purposes.

W. H. Holaday has sold his interest in Holaday & McIntosh, Columbus, Ohio, to his partner, J. T. McIntosh, who will continue the business under the name of J. T. McIntosh & Co.

The capital stock of the Merrill Farmers Elevator Company of Merrill, Mich., has been increased from \$50,000 to \$10,000 in preferred stock and 50,000 shares of non-par value stock at \$1 a share.

Cruikshank & Kraft of Fostoria, Ohio, have dissolved the partnership. George L. Kraft will continue in the grain and hay business and will take over the unfinished business of the firm.

Arthur W. Cunningham has purchased from his father, John W. Cunningham, the business of the Gem City Elevator Company at Gem (Dexter City p. o.), Ohio. The new owner will conduct the business with his brother, Harry Cunningham.

The Kensington Grain & Elevator Company was recently organized at Kensington, Ohio, capitalized at \$60,000, with John A. Williard, E. Mulherin, Wm. Hays, H. S. Fife, John M. Oyer, John Ridgeway and Charles W. Heim directors. The firm will either buy or build an elevator.

Murray Eisfelder has acquired the interest of W. A. Daniel in the W. A. Daniel Company, grain brokers at Cincinnati, Ohio, which was organized a year ago by Daniel and Paul Van Luenen. Mr. Eisfelder was former president of the Fairmount Elevator & Warehouse Company. J. B. Reynolds becomes a partner in the business which will now be known as the Van Luenen-Reynolds & Co.

EASTERN

C. B. Rushworth's grain house at Lowell, Mass., has been purchased by R. K. Dexter & Son Company.

Roy Gordon has sold his grain stock at Hillsborough, N. H., to W. C. Dennison. The Gordon store was closed.

The grain elevator of A. Dodge & Son, located at Beverly, Mass., has been purchased by William G. Horton of Ipswich.

A \$10,000 storage plant is to be erected at the elevator of Spencer Kellogg & Sons, Inc., at Michigan and Ganson streets, Buffalo.

J. L. Pennock & Co., of Avondale, Pa., have purchased the grain, feed and hay business of the estate of E. A. and J. L. Pennock of Chatham, Pa.

Frank J. Ludwig, Monroe J. Lorimer and Franklin W. Perry have incorporated at Waltham, Mass., as the Beaver Brook Grain Company. Its capital stock is \$25,000.

A feed, grain, flour and coal business has been started at York, Pa., by G. G. Jones and Fred F. Roberts as the York Grain & Feed Company. Mr. Jones has been out of the milling business for some time.

A concrete addition costing \$275,000 is to be erected to the elevator of the Superior Elevator Company of Buffalo, N. Y., which will bring the elevator capacity at Buffalo up to 25,000,000 bushels.

Articles of incorporation have been filed by the Poughkeepsie Feed Company, Inc., of Arlington, N. Y., which will deal in grain, feed, etc. The firm is

capitalized at \$5,100. The incorporators of the firm are: E. B. Stringham, Wappingers Falls, N. Y.; W. T. Van Sise, and M. R. Graham, both of Poughkeepsie, N. Y.

The warehouse of S. K. Chambers & Bro. at Elk View, Pa., has been sold to Howard F. Brown. The warehouse at West Grove has been sold to the Shortlidge Bros. of Lincoln University.

To deal in grain, flour and fuel, the J. H. Hanson & Son Company has been incorporated at Calais, Maine. The directors are James H. Hanson, D. J. Hanson and William F. Hanson. The capital stock of the firm is \$10,000.

Two of the grain and feed warehouses of the S. K. Chambers & Bro. of Westgrove, Pa., have been sold, the one at West Grove to the Shortlidge Bros. of Lincoln University, Pa., and the Elkvie, Pa., house to Howard F. Brown.

A warehouse building at Nashville (Spring Grove p. o.), Pa., has been rented by Martin F. Thatcher, formerly connected with the Utility Feed Company of York, Pa. He will start a feed grinding business to be known as the Community Feed Mills Company.

An appropriation of \$1,307,000 was passed by the New York State Assembly on March 26 providing for the completion of the grain elevator and terminal on the State Barge Canal at Oswego. The appropriation will be sufficient to complete the construction and install the equipment of the new grain elevator.

ILLINOIS

Scales are being installed in the elevator of the Adrian Elevator Company, Adrian, Ill.

The old West Elevator of the Weldon Grain Company at Weldon, Ill., is being torn down.

The elevator of the Froedtert Grain & Malting Company, at Chicago, has been named the "Calumet."

The Bentley Farmers Grain Company of Bentley, Ill., has been dissolved. The company will be reorganized.

The site of the elevator of Cuppy & Moss at Kemp, Ill., has been purchased by T. E. Hamman of Decatur.

A grain elevator costing \$15,000 is to be built in the near future for the Beall Grain Company at Harriestown, Ill.

A new elevator is being erected at Warrensburg, Ill., by J. F. Beall to take the place of the one which he now operates.

H. E. Selby after 50 years in the grain business at the head of the Selby Grain Company at Golden, Ill., has sold out and will retire.

The capital stock of the Wallace Co-operative Grain & Supply Company of Ottawa, Ill., has been decreased from \$100,000 to \$50,000.

The grain commission business of John H. Norris at Hoopeston, Ill., has been purchased by the J. C. Shaffer Grain Company of Chicago.

C. W. Baker's interests in the elevator and real estate at Schrodt's Station (Mt. Carmel p. o.), Ill., have been purchased by E. R. Snyder.

The Fred Wells Grain Company has sold the elevator at Filson, Ill., for \$13,000 to T. E. Hamman of Decatur. He will take charge April 1.

A wheat cleaner and other machinery have been installed in the house of the Virden Grain Company of Virden, Ill., of which J. C. Bradway is manager.

Remodeling and extensive repairs are being made to the house of the Hudson Grain & Coal Company of Hudson, Ill. A new foundation is also being put in.

The grain elevator of the London Mills Farmers Co-operative Elevator Company of London Mills, Ill., is to be remodeled and equipped with new machinery.

C. P. Cline & Co., grain brokers, and F. M. Robertson Grain Company of Decatur, Ill., have consolidated their interests under the name of Cline & Robertson.

The elevator and site of the Broadwell Grain Company of Broadwell, Ill., have been sold by Fred Maurer, proprietors, to John W. Prather and W. W. Hill of Williamsville and Springfield.

A. L. Maple of Glasford and J. A. Peters of Peoria, have purchased from the Farmers Lumber & Grain Company the property at Glasford, Ill., of which they were originally the owners.

James Bailey and Herbert Moore as the Bailey-Moore Grain Company, have established offices at Gibson City, Ill. They specialize in buying and selling grain for their elevators at Garber and Sibley.

The Inland Grain Company's elevator at Wing, Ill., known as J. H. Wright & Co., at that place will be rebuilt. A working house and additional storage tanks will be added to the 40,000-bushel house there.

The Humrick, Ill., and the West Humrick, Ill., elevators, formerly operated by the Frank Jones

Grain Company, with a capacity of 100,000 bushels each, have been purchased by Harry Brock-Jones, Jr., and O. Linebarger. Mr. Jones is succeeded at Melwood by Walter F. Barth of Metcalf.

Frank Dehart will rebuild his elevator at Galton, Ill., which has a capacity of 54,000 bushels. The plant will be overhauled and equipped with new machinery which will increase the capacity to 95,000 bushels.

E. S. Westervelt is now with the S. C. Bartlett Grain Company of Fairbury, Ill. He was for 11 years in the employ of the Farmers Grain Company. Walter Stuckey succeeds Mr. Westervelt at the Farmers company.

MINNESOTA AND WISCONSIN

The Farmers Elevator at Iona, Minn., has been closed down and will be sold in the near future.

The elevator and feed mill of Edmund Gregoire at Hugo, Minn., have been purchased by Jos. Bernier.

E. W. Eaton is manager of the Farmers Elevator at Hadley, Minn., and took charge of the house on March 27.

C. Essen of Steen is manager of the machine department of the Farmers Elevator Company of Raymond, Minn.

The warehouse of the Farmers Warehouse Company at Hayward, Wis., which burned, is to be rebuilt at once.

The capital stock of the Farmers Home Elevator Company of Black River Falls, Wis., has been decreased to \$20,000.

A five-horsepower electric motor has been installed in the elevator of the J. P. Schissel Elevator Company, Adams, Minn.

John E. Johnson of Havana, N. D., recently took charge as manager of the Independent Co-operative Elevator at Litchfield, Minn.

A new wagon scale and new dump scale are being installed for the Farmers & Merchants Supply Company of Minneota, Minn.

The controlling interest of Leo Gensmen in the Merrill Elevator Company at Merrill, Wis., has been sold by him to H. A. Steumke.

A modern elevator and feed store are to be erected at Neillsville, Wis., this coming summer by the Bruley Elevator Company.

The Spencer-Kellogg Elevator Company of Superior, Wis., is having a new concrete and steel dock front erected at a cost of \$15,000.

Elevator "C" of the Farmers Independent Elevator Company at Russell, Minn., is being torn down. The lumber is to be sold.

A modern elevator is to be erected at Winona, Minn., for the Western Grain & Coal Company replacing the plant which burned in January.

Junkman's Elevator at Beldenville, Wis., is to be conducted under the management of Floyd Most who succeeds Albert Ramberg, now at Elmwood, Wis.

A new 10-ton scale is being installed and other general repairs are being made to the elevator of the Farmers Co-operative Elevator Company of Frost, Minn.

A brick grain and feed warehouse is to be erected at Milwaukee, Wis., for R. W. and J. J. Schisseler of Milwaukee. He has purchased a site for the same.

The elevator property of the Lund Grain & Coal Company at Bricelyn, Minn., has been sold by L. B. Lund to the Bricelyn Farmers Elevator Company. The new owners took possession immediately.

The elevator of S. W. Stephenson at Dexter, Minn., is being repaired and the plant covered with iron, and equipped with silent chain drive and new machinery. An additional storage will also be built.

The Loomans-Rossmans Company of Waupun, Wis., has extended its charter to permit it to purchase and sell flour, grain and feed, and conduct a general grain elevator. Ira J. Rossmann is president and Lillian M. Loomans, secretary of the corporation.

INDIANA

Fred Burger succeeds Wm. G. Beal as manager of the Rich Grain Company of Goodland, Ind.

Frank Lindsay succeeds Charles Maley as manager of the grain elevator at Columbus, Ind.

The elevator located at Ridgeville, Ind., has been purchased by Fred Murray of Hagerstown, Ind.

The Farmers Co-operative Elevator at Antioch (mail to Cynthiana), Ind., is to be managed by Ross Rising.

The Radnor, Ind., elevator of W. H. Isenhour has been sold by him to James Washburn and Luther Greenwood.

R. A. Campbell recently bought from the receiver the grain elevators at Boston, Witts Station and Kitchel, near Richmond, Ind., for \$24,100. The Boston plant was resold to D. Swisher of Campbells-town, Ohio. The plant in Fountain City was pur-

chased by W. E. Muff for \$7,070. The four houses of the Farmers National Grain Association were sold to satisfy creditors.

A grain storage building, costing \$10,000, is being erected at Rushville, Ind., by the Rush County Mills Company.

The New Waverly Equity Exchange of Logansport, Ind., has changed its name to that of the Farmers Elevator Company.

The grain and lumber business of the Moore Bros. at Rosston (mail to Lebanon), Ind., has been sold to Baxter McBane of Fortville.

The Gas City Elevator Company at La Fontaine, Ind., has been purchased by A. B. Martin of La Fontaine. Possession was given April 2.

The elevator and coal docks of the Boyleston Grain Company at Boyleston, Ind., have been sold to Washburn & Greenwood who have been operating at Remington.

The elevator of the Ogle Cook Grain Company at Hillisburg, Ind., has been purchased by James Washburn and Luther Greenwood.

The Mount Ayr Grain Company has purchased the elevator at Mt. Ayr, Ind., formerly operated by the Farmers Co-operative Company. Its capacity is 70,000 bushels.

The Lucerne Elevator Company at Lucerne, Ind., is being managed by Ray Cochrane. He succeeds Harry Catron. Mr. Cochrane was formerly with the Farmers Elevator Company of Royal Center, in a similar capacity.

The elevator at Delphi, Ind., owned by Whiteman Bros. & Co., has been sold to C. M. Kerlin. Mr. Kerlin and his father owned and operated the elevator for 25 years previous to 1919 at which time they sold to the Whiteman company.

A new concrete elevator of 100,000 bushels' capacity is to be erected at Evansville, Ind., for the Igleheart Bros. This will make the total number of elevators operated by the Igleheart Bros., 40, the combined storage capacity of which is 1,200,000 bushels.

The Big Four Elevator at Warsaw, Ind., has been purchased by the Little Crow Milling Company. It purchased it from the Kinsey Bros. W. F. Maish, Sr., head of the company, announced that the company plans to tear down the old elevator and replace it with a modern house.

WESTERN

Another warehouse is to be erected for the Stanwood Grain Company of Stanwood, Wash.

A modern one-story office is being erected to the elevator of the Summit Grain Company of Denver, Colo.

The grain and feed business of O. P. Woody at Okanogan, Wash., has been purchased by W. H. Fletcher.

The capital stock of the Oregon Grain Company of Turner, Ore., has been increased from \$45,000 to \$65,000.

A complete mill has been added to the business of C. C. Stafford at El Monte, Calif., a grain and hay dealer.

The Equity Co-operative Association of Brockton, Mont., is succeeded in business there by the Farmers Elevator Company.

The Ambler Grain & Milling Company of Lamanda Park, Calif., is going to erect an additional storage room at its plant there.

The warehouse of W. A. Leathers at Hermiston, Ore., has been sold to W. W. Felthouse who will use it for the storage of hay.

The name of the Grange Warehouse Company of Deer Park, Wash., has been changed to that of the Park Mercantile Company.

A. C. Wilson, W. J. Wilson and S. H. Wilson have incorporated at Pocatello, Idaho, as the Peerless Grain Company, capitalized at \$25,000.

Lee Benson is no longer with the Wilson Grain Company of Pocatello, Idaho, but has joined the F. C. Ayers Mercantile Company with headquarters at Denver, Colo.

The Stephens-Smith Grain Company operating at San Francisco, Calif., has been dissolved. The E. L. Smith Grain Company has been incorporated to take over the business.

Jesse Taylor now manages the elevator of the Colorado Milling & Elevator Company at Windsor, Colo. He was formerly manager of the Hudson Elevator Company, Hudson, Colo.

The Evans Elevator at American Falls, Idaho, has been leased by the Intermountain Milling Company which will operate it. The Intermountain company's old elevator at that place burned a short while ago.

A branch office has been opened at Stockton, Calif., by A. W. Scott & Co., hay and grain merchants. They have assumed control of the plant and business of the San Joaquin Wharf & Warehouse Company.

A new elevator and mill and equipment are to be erected for the Husler Flour Mills of Salt Lake

City, Utah. The contract for the work has been let to the Burrell Engineering & Construction Company. The new mill will have a capacity of 1,000 barrels daily, and will cost \$500,000.

Ralph P. Laird and others have incorporated at Eugene, Ore., as the Lane County Farmers Co-operative Warehouse Company, capitalized at \$5,000. The company has purchased the warehouse of Morrison & Ford. E. E. Morrison will manage it.

J. H. Woodcock, W. H. Churchill, and Percy M. Johnson have filed articles of incorporation at Maupin, Ore., as the Woodcock Bros. Milling Company and will engage in a general grain, milling and electric power business. The firm is capitalized at \$50,000.

The Yellowstone Elevator Company is to erect for itself a grain elevator at Forsyth, Mont. It will be 24x25 feet, of cribbed construction and will be equipped with a hopper scale, wagon scale and manlift. A. R. Thurston is president and general manager of the firm.

MISSOURI, KANSAS AND NEBRASKA

An elevator is to be erected at Maryville, Mo., by J. R. Cook.

The Seward Elevator at Richmond, Mo., which burned last fall is to be rebuilt.

The James Morrison Elevator at Ragan, Neb., has been bought by Miller & Greeley.

A large warehouse is to be erected at Belpre, Kan., for the Farmers Grain Company.

A grain brokerage business is to be conducted at Dunbar, Neb., by O. C. Beaman & Son.

A. M. Darwin has succeeded J. S. Hubka as manager of the Farmers Elevator at Virginia, Neb.

The elevator of Fife & Walkup at Armstrong, Mo., has been sold to Frank Summers of Gilliam, Mo.

The office of the C. C. Smith Wholesale Grain Company at Conway Springs, Kan., has been closed.

The elevator of the Schinstock Bros. at Westpoint, Neb., is being operated by H. C. Schinstock.

J. B. Pariott is succeeded as manager of the Farmers Elevator at Peru, Neb., by J. F. Heywood.

M. L. Christian succeeds E. L. Ives as manager of the Farmers Elevator Company at Silver Creek, Neb.

Extensive repairs are to be made to the elevators of the Shannon Grain Company of Palisade, Neb.

The property of the Atlas Elevator Company at McLean, Neb., has been purchased by J. F. Schomberg.

Tom Siefken is succeeded as manager of the Farmers Union Elevator at Harvard, Neb., by C. W. Yost.

The elevator of the Latta Grain Company at Tekamah, Neb., is under the management of F. E. Reinert.

J. Bickley is succeeded as manager of the Waco Farmers Grain Company at Waco, Neb., by H. E. Francis.

Christ Elgaard is succeeded as manager of the Farmers Elevator at Weeping Water, Neb., by Ed Lorenson.

J. M. Davis succeeds William Auledick as manager of the Holmquist Grain & Lumber Company of Homer, Neb.

W. H. Zieme has purchased the old Enterprise Grain Company's elevator at Hollinger, Neb., and is operating it.

The interest of T. R. Evans in the Lebo Grain & Elevator Company at Lebo, Kan., has been sold to J. L. Jones.

The capital stock of the Steel Elevator Company of St. Louis, Mo., has been increased from \$100,000 to \$125,000.

W. A. Stewart is operating the elevator of the Farmers Union Co-operative Association of Ong, Neb., as manager.

The contract has been let by the Light Grain & Milling Company of Liberal, Kan., for a 15,000-bushel addition.

Theodore Bauer has resigned his position as manager of the Cameron Co-operative Elevator Association of Cameron, Mo.

The elevator of the Nye-Schneider-Jenks Company at Oak, Neb., has been purchased by the Oak Elevator Company.

The Roca Co-operative Grain & Coal Company of Roca, Neb., is not in business and is now succeeded by the Keel Bros.

Additional storage tanks are to be erected at Ashland, Neb., to the elevator of the Albers Commission Company of Omaha, Neb.

P. W. McDermid has resigned as manager of the Nye-Schneider-Jenks Elevator at Bellwood, Neb., and is succeeded in that position by Fred Reigel of David City.

The contract has been let by the Wellington Milling & Elevator Company of Wellington, Kan., to the Jones-Hettelsater Construction Company for two elevators, one to be located at Argonia, and

one at Milan, Kan. Each will have a capacity of 15,000 bushels and will be of ironclad, frame construction.

The Williamson Elevator at Runnymede, Kan., has been purchased by M. Botkin and the management has been taken over by him.

The house of the Gretna Elevator Company at Gretna, Neb., is now being managed by J. H. Westphalen. He succeeds C. V. Thomas.

The elevator of the Hebron Elevator & Shipping Association of Hebron, Neb., has been purchased by F. C. Machin of Springhill, Kan.

A modern grain elevator of 13,000 bushels' capacity is to be erected at Hopewell, Kan., for the Huff Grain Company of Lewis, Kan.

The business of the Farmers Union Co-operative Grain & Supply Company at Redwing, Kan., has been purchased by Bortz & Meyers.

Capitalized at \$25,000, the Farmers Co-operative Elevator Company has been incorporated at Daykin, Neb., by J. H. Haake, and others.

The elevator of Sterling I. Stewart at Drexel, Mo., has been sold by him to the Farmers Elevator, Mercantile & Manufacturing Company.

The Elm Creek Equity Exchange is successor at Elm Creek, Neb., to the Elm Creek Grain & Hay Company. E. D. Morrison is manager.

A. C. Dunning has bought the elevator at Shelby, Neb., which was owned by the Shelby Grain Company. Mr. Dunning's elevator burned last fall.

A new elevator is to be erected at Douglas, Neb., by Ed Barbling. It is planned to erect part of the new structure before tearing down the old one.

A 10-horsepower motor and blower loader are being installed in the elevator of the Clay Center, (Neb.) Grain Company. A. H. Deines is manager.

A 7,000-bushel elevator will probably be erected at Zimmerdale (Hesston p. o.), Kan., for the Highland local of the Kansas Wheat Growers Association.

The elevator and grain business of the Home Grain Company at Aurora, Kan., has been purchased by the Robinson Milling Company of Salina, Kan.

Henry Taylor is manager of the Shannon Grain Company of Carleton, Neb., succeeding J. M. Hart, who is now manager of the Farmers Elevator Company.

The elevator of the Farmers Co-operative Elevator Company at Wakeeney, Kan., is to be managed by A. D. Richter, formerly in the grain business at Salina.

J. A. Falen has resigned as manager of the Farmers Co-operative Union Elevator at Lyons, Kan. He will go to Stafford and conduct a grain business there.

The contract has been let by the Robinson Wyatt Grain Company of Salina, Kan., for a 15,000-bushel elevator at Milo, Kan. It will be equipped with modern machinery.

The Farmers Co-operative Elevator Company at Roscoe, Neb., is succeeded by the Farmers Co-operative Elevator Association and is managed by J. C. Armstrong.

The Farmers Elevator Company has been incorporated at Wellington, Kan., capitalized at \$10,000. Edw. C. Peasel, Ed. S. Babcock and A. B. Cann are interested.

Capitalized at \$10,000, the Speed Farmers Elevator Company has been incorporated at Speed, Mo. G. K. Crawford, D. E. McArthur and C. W. Chamberlain are interested.

Henry Dannenberg has purchased the Farmers Union Elevator at Gaylord, Kan. Mr. Dannenberg represented a company who will operate it and paid \$7,325 for the property.

A farmers co-operative warehouse and elevator has been organized at Jefferson City, Mo., by the Cole County Farm Bureau. The capital stock of the company is \$10,000.

Joseph Willey succeeds C. G. Briggs as manager of the Farmers Elevator & Milling Company of Doniphan, Neb. Mr. Briggs is now with the Hynes Elevator Company at Trumbull.

The elevator of the Broadwater Co-operative Society at Broadwater, Neb., has been purchased by Thos. O. Haiston. The company will operate as the Broadwater Grain Company.

Lester Miller has retired as manager of the Producers Grain Company at Mexico, Mo., and is succeeded by C. M. Fox. Mr. Miller is now with the A. P. Green Fire Brick Company.

The Farmers Union Co-operative Company, under the management of Roy Ward, is operating the elevator at Helvey, Neb., formerly operated by the Helvey Farmers Elevator Company.

The Updike Grain Corporation, Omaha, Neb., has bought the elevators of the Maney Milling Company on the Union Pacific Tracks. The elevators have an aggregate capacity of 500,000 bushels. Possession will be given immediately.

A cribbed grain elevator of 35,000 bushels' capacity is to be erected at Chapman, Neb., for the Chapman Co-operative Grain Association replac-

ing the present plant. The equipment will include one leg, motors, Fairbanks Wagon Scale, automatic scale and manlift.

The Farmers Co-operative Elevator Company has awarded the contract for the remodeling of its elevator at Beatrice, Neb. It will install new motor, new leg, dust collector and new dump.

The Farmers Elevator at Satanta, Kan., has been purchased by C. F. McDonald who will take possession on June 1. Mr. McDonald was for 15 years manager of the Garden City Elevator.

A transit elevator has been opened at Aurora, Neb., for the T. B. Hord Grain Company of Central City, Neb. The house has a capacity of 100,000 bushels and is well equipped with machinery.

A charter has been granted the Farmers Co-operative Grain & Mercantile Company of Valley Falls, Kan., capitalized at \$11,000. The incorporators are: L. A. Reppert, W. J. Brose, W. E. Eagle and others.

The Lathrop Elevator has been purchased by C. F. Owens of Lees Summit, Mo., from S. W. Shoemaker. Mr. Shoemaker purchased the property a few months ago and since then it has been leased by J. L. Johnson.

W. F. Rhinehart and E. G. Rhinehart have organized at Dodge City, Kan., and will erect an elevator and warehouse for general grain, feed, and

seed business. It will cost \$20,000. The elevator section will be three stories high and the warehouse one story.

The contract has been let by Eubank & Co., of Protection, Kan., for a 20,000-bushel elevator. The equipment will include a 1,000-bushel Eureka Cleaner, a dump, automatic scale, two 10-horsepower motors, non-chokable legs and a manlift.

The elevator of the M. P. R. R. at Hickman, Neb., has been purchased by the Judah Grain Company of which J. E. Judah is manager. The company contemplates rebuilding it and installing new machinery.

The Farmers Elevator & Feed Company has taken over the property formerly conducted at Indianola, Neb., by the Farmers Elevator Company. This company was the reorganization of the former concern.

The elevator of the Farmers Elevator Company at Penasola, Kan., has been purchased by A. G. McReynolds, manager of the Farmers Commission Company at Hutchinson, Kan. J. H. Dye of Cunningham will be in charge.

A 15,000-bushel grain elevator, iron clad, is to be erected at Dresden, Kan., for the C. E. Robinson Grain Company. It will be equipped with a 10-horsepower Type "Z" Engine, rope transmission, non-chokable legs and manlift.

rebuild but has not yet decided definitely upon the plans for the elevator.

Struble, Iowa.—The elevator of the Atlas Elevator Company, together with 1,500 bushels grain, burned. A defective flue caused the fire.

Hayward, Wis.—On February 17 fire damaged one of the line elevators of the A. M. Penney Company. The cause of the fire is unknown.

Delia, Kan.—Fire caused by an overheated exhaust pipe damaged the elevator of the Delia Farmers Union Co-operative Business Association.

Myrtle, near Albert Lea, Minn.—Fire destroyed with a loss of approximately \$20,000, the flour warehouse and elevator of the Speltz Grain Company.

Fort Benton, Mont.—A bad choke occurred on March 6, in the elevator operated by the Greely Elevator Company and caused a fire which did slight damage to the plant.

Fort Dodge, Iowa.—Fire on March 8 damaged to the extent of \$8,500 the plant of the Farmers Elevator Company. About 11,000 bushels corn and oats were destroyed.

Jetmore, Kan.—Fire destroyed with a loss of \$30,000, the elevator and mill of the A. H. Ling Milling & Elevator Company. Approximately \$10,000 insurance was carried.

Tyndall, S. D.—On April 7 fire destroyed the elevator of E. W. Geid & Son with 2,400 bushels oats, 1,500 bushels wheat and 100 bushels corn. The total loss is unknown.

Marland, Okla.—Fire destroyed the Farmers Co-operative Elevator on March 21 together with 10,000 bushels wheat. Insurance amounted to \$10,000 on building and \$2,500 on machinery.

Early, Iowa.—Fire on March 6 destroyed the elevator of the Early Grain Company. The elevator contained approximately 4,000 bushels oats and 4,000 bushels corn. The insurance amounted to \$10,000.

San Antonio, Texas.—The two large corrugated warehouses of the M. Maruchau Grain Company together with contents of grain and hay burned with a loss of \$15,000. The fire did not touch the main elevator.

Milford, Texas.—Fire destroyed the warehouse of Davis & Parker who conduct a grain and coal business. A large amount of oats, corn, etc., was stored in the building. The loss amounted to \$12,000, partly covered by insurance.

Ordway, S. D.—Fire destroyed completely the Farmers Elevator on March 30. The fire is believed to have been started from the gasoline engine. The elevator was owned by the Atwood Larson Company of Minneapolis.

FIRES—CASUALTIES

Abilene, Texas.—The Wright Grain Store burned a short time ago.

Glasford, Ill.—Fire destroyed the elevator of Lightbody & Sons.

Albee, S. D.—The plant of the Farmers Elevator Company burned last month.

Belle Plaine, Minn.—Fire destroyed the Peavey Elevator here owned by E. Geist.

Lawrence, Mass.—Fire damaged the property of the Stanley Grain Company recently.

Bradford, Ohio.—A tornado damaged on March 11 the grain tanks of W. D. Wilson & Co.

Conception, Mo.—Fire destroyed with a total loss the elevator operated by B. V. Kirby.

Hopkins, Mich.—On March 11, the Hopkins Elevator Company experienced a small damage loss.

Big Sandy, Mont.—The elevator of the Rocky Mountain Elevator Company burned not long ago.

Falun, Kan.—With a loss of \$2,000, the unused elevator of the Western Star Mill Company burned.

Piper, Kan.—On March 30, the elevator operated by James Glenn took fire and was totally destroyed.

Van Buren, Ark.—The Oglesby Feed Company's wareroom burned with a loss of \$1,000 in feed and hay.

Anderson, Iowa.—Fire damaged the elevator of W. F. Otte recently. The cause of the fire is unknown.

Horton, Kan.—Fire destroyed on March 15 together with three carloads of grain, the Graham Elevator.

Poteau, Okla.—The elevator and flour mill of the Poteau Mill & Elevator Company burned with a loss of \$50,000.

Smyrna, Tenn.—Fire on March 19 destroyed the warehouse of R. O. Davis. The cause of the fire is unknown.

Noblesville, Ind.—The grain elevator of Foresam & Co., at Noblesville burned on March 31 with a loss of \$30,000.

Barnston, Neb.—The grain elevator here owned by Sam Douglas burned. It is to be rebuilt at once by Mr. Douglas.

Underwood, N. D.—A loss of \$25,000 was sustained when fire destroyed the Dodge Elevator with 10,000 bushels of wheat.

Chanute, Kan.—With a loss of \$100,000, the elevator of the Farmers Mill & Elevator Company burned on March 22.

St. Charles, Ill.—Fire damaged the elevator operated under lease by George Marshall. The fire was of incendiary origin.

Chesaning, Mich.—On March 24, the Chesaning Farmers Elevator Company sustained a serious loss by fire from a hot box.

Bowling Green, Mo.—Fire on March 21 destroyed the elevator of the Farmers Equity Exchange with a slight damage to the plant.

Turin, Iowa.—Fire destroyed the elevator of the Turin Elevator Company together with 12,000 bushels grain stored in the house.

Ferney, S. D.—The elevator of the Eagle Roller Mill Company burned on March 29. A hot box is believed to have caused the fire. There was a con-

siderable quantity of wheat in the elevator at the time of the fire. The loss is covered by insurance.

Downey, Calif.—On March 29 fire started in the warehouse of the Downey Grain Company and a slight damage loss was sustained.

Irwin, Pa.—Fire on March 3 destroyed the entire plant of the Irwin Flour & Feed Company with a loss of \$100,000. R. F. Altman is owner.

Cashup, mail Thornton, Wash.—Fire damaged the office of the Cashup Elevator on March 8 and damaged considerable machinery and 10,000 bushels of grain.

McCracken, Kan.—Fire on March 13 destroyed the elevator of the Ryan Grain Company. A quantity of wheat was destroyed. The company will

OBITUARY

BARBER.—H. O. Barber died at his son's home in Niles, Mich. He was formerly in the grain business at Lincoln, Neb.

BARNARD.—Henry C. Barnard died on March 1. He had been a member of the Milwaukee Chamber of Commerce, Milwaukee, Wis., since 1874. He had not been in active business for a number of years.

BELCHER.—F. Belcher, very well known in connection with grain trade activities in Winnipeg, Man., died recently in his 45th year.

BEUTNER.—Henry Beutner died on March 19 at Des Moines, Iowa. He was formerly of the Marfield Grain Company; later he took a position with a private wire house in Des Moines.

BRACKEN.—J. L. Bracken died recently at Tama, Iowa, where he had been in the grain business.

CANBY.—On March 14 aged 67 years, Caleb Harlan Canby died at his home in Chicago, from pneumonia. He was at the head of C. H. Canby & Co., of Chicago for years and also served two terms as president of the Chicago Board of Trade.

DICK.—Hans G. Dick died recently at Scituate, Mass. He was a retired grain dealer.

DYE.—Nelson T. Dye died recently at Monrovia, Calif. He at one time had been in the grain business in Northwood, Iowa.

ENDELMAN.—John Endelman died on March 23 after an attack of influenza. He was a brother of F. G. Endelman, of the Western Grain Company of Kansas City, Mo., and was well known to Nebraska grain men. His widow and two sons survive him.

HAID.—Daniel Haid, Jr., died at Berger, Mo., recently. He had been prominent in the grain business there.

GAMBRILL.—Richard Gambrill died on March 17 aged 61 years. He was a member of the grain trade at Baltimore, Md., and originally operated under the firm name of Smith-Gambrill, doing a large export business. In 1885 he came to Chicago,

joined the Board of Trade and since then had been actively engaged in the grain business in that market. His widow, one son and a daughter survive him.

HARRIS.—Plummer Harris died at his home in McKinney, Texas, from heart failure. He was a grain and hay man there for years.

HENN.—Charles Henn committed suicide on March 13. He was formerly in the grain business at Borton, Ill.

HUGHES.—James F. Hughes died during March aged 42 years, at his home in Brooklyn, N. Y., where he was in the feed and flour business.

JONES.—William Jones died on March 5 after a six months' illness at his home in American Lake, Wash. He was president of the Jones-Scott Company, grain dealers, and was a director of the Pacific Light & Power Company of Portland, Wash.

KECK.—Orlando Keck died at Pasadena, Calif., aged 60 years. He was a grain operator at Rock Rapids, Iowa, and owned a number of elevators in Iowa.

KENYON.—W. J. C. Kenyon died at his home in St. Joseph, Mo., on March 18, aged 65 years. He was manager of the Traffic Bureau of the Chamber of Commerce of St. Joseph.

LITTLEFIELD.—Darius Littlefield died recently at Wollaston, Mass. He was in the grain and hay business with his brother, John H. Littlefield, for many years.

MACAROW.—H. F. Macarow died at Allentown, Pa., while on a visit there, from pneumonia. He was a grain broker of Hazelton, Pa.

MAGILL.—John Magill died recently after an illness from pneumonia of two weeks duration. He was a prominent grain dealer and elevator man of Portland, Ind.

MEISSNER.—Manuel Meissner died recently at Hilger, Mont. He was manager of the Equity Co-

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operative Association and was engaged in the elevator business at Hilger, Mont. His widow and one son survive him.

M'MULLIN.—William J. McMullin died recently at his home in Philadelphia, Pa., aged 83 years. He was a member of the Commercial Exchange and was a retired grain merchant. His daughter survives him.

PARKER.—John U. Parker died on March 9 following an operation for appendicitis. He was connected with the Rayford Grain & Elevator Company of Sherman, Texas. He had been with the various grain and milling firms in Texas, for 20 years.

RAYMOND.—A. C. Raymond died recently at Detroit, Mich. He was a retired grain dealer and at one time was head of A. O. Raymond & Co., one of the most important grain houses in the state.

ROAHEN.—Ernest E. Roahen died at his home in Kansas City, Mo., after a short illness. He was president of the E. E. Roahen Grain Company there. Before coming to Kansas City, he was interested in the grain business at St. Louis and was the owner of a line of elevators. He entered the grain business at Kansas City with Mr. Cary as the Roahen-Cary Grain Company. Ten years ago, after Mr. Cary's death, Mr. Roahen purchased all other interests in the firm and since then has been at the head of the firm bearing his name. He was a member of the Kansas City Board of Trade and was a director of the Exchange at the time of his death.

ROMMEL.—Henry Rommel died recently. He was a pioneer resident of that state and established a grain elevator at Atkinson, Ind., which he conducted for 30 years.

RUSSELL.—Mr. Russell, manager and secretary of the Western Grain Company of Lawton, Okla., died on February 23 in an automobile accident.

SEBRING.—James Leroy Sebring died on March 2, aged 83 years. He was one of the oldest grain buyers and shippers in Kalamazoo, Mich. He retired from active business in 1904.

SCHAEFFER.—John M. Schaeffer died on March 26 aged 77 years, after an illness of two years. He was a well known grain merchant. For a number of years he conducted the Dumm Flour mill at Fleetwood, Pa. Two children survive him.

SCHMEISSER.—Ernst Schmeisser died at Baltimore, Md., where he was a member of the Chamber of Commerce.

SIMS.—M. C. Sims died at Atlanta, Ga. He was junior partner of the firm of Hayn & Sims, brokers of Atlanta.

SWEARINGEN.—John B. Swearingen died on March 15 after a long illness following an attack of grip. He was president of the United Grain Company of Omaha and was formerly president of the Omaha Grain Exchange. He was associated for years with the Central Granaries Company at Lincoln, Neb. In 1903 he went to Omaha and joined the staff of the Nebraska-Iowa Grain Company. From there he went to the United Grain Company; he was president of the Exchange in 1915. His widow survives him.

VAN HORN.—Samuel A. Van Horn died from pneumonia at his home in Lawrenceburg, Ind., on March 18 aged 90 years. He was a pioneer hay merchant of Cincinnati and Lawrenceburg and was a member of the Cincinnati Chamber of Commerce since 1865. He had been continuously in the hay business for 55 years.

VÖCKE.—John H. Vocke died recently at Napoleon, Ohio. He was connected with John H. Vocke & Co., and was a pioneer grain dealer and miller.

WELLS.—J. E. Wells of the J. E. Wells Company died on March 21 at Sidney, Ohio.

WINCHESTER.—William Winchester, a member of the Baltimore Chamber of Commerce, died recently at Baltimore, Md.

THE acreage devoted to winter wheat in France this year is nearly 10 per cent greater than that sown last year. There is also a notable increase in the sowings of barley, oats, and rye.

THE opinion of the grain trade abroad supports the view that official harvest estimates are below actual production in every country where grain has been requisitioned, or where minimum food prices have been established.

PREVIOUS to 1918 Brazil imported considerable quantities of rice. Since that time, however, production has increased to such an extent that rice is now considered fifth in importance among the food crops. About 500,000 acres of land are now devoted to the cultivation of this cereal. Brazil has now become an exporter of rice.

ANTICIPATING the building of a branch road by the Burlington from Hardin, Mont., through the Big Horn Valley, the Campbell Farming Corporation will plant 3,000 acres of wheat on the Fort Smith ranch. The total acreage planted to wheat by the Corporation will be 11,000 to Winter and 8,000 to 10,000 to Spring wheat.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for March:

BALTIMORE.—Reported by Jas. B. Hessong, secretary of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	1,373,560	1,411,007	2,185,910
Corn, bus...	1,756,556	8,964,900	2,188,055
Oats, bus...	127,533	142,382	20,039
Barley, bus...	4,554	79,677	20,495
Rye, bus...	1,835,808	376,721	741,893
Malt, bus...	12,962	1,676	.....
Hay, tons...	1,497	.....	.....
Flour, bbls...	85,068	131,756	25,829

CAIRO.—Reported by M. C. Culp, chief grain inspector and weighmaster of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	65,721	50,060	77,289
Corn, bus...	439,681	186,172	551,825
Oats, bus...	1,919,804	1,172,061	1,851,671
Barley, bus...	.....	1,357	1,239,637
Rye, bus...	4,976	.....	4,978

CHICAGO.—Reported by J. J. Fones, secretary of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	1,627,000	1,229,000	1,341,000
Corn, bus...	11,406,000	12,446,000	5,118,000
Oats, bus...	6,370,000	5,553,000	6,167,000
Barley, bus...	987,000	766,000	348,000
Rye, bus...	382,000	222,000	313,000
Timothy Seed, lbs...	1,697,000	2,828,000	3,291,000
Clover Seed, lbs...	1,825,000	2,448,000	1,252,000
Other Grass Seed, lbs...	1,691,000	3,134,000	683,000
Flax Seed, bus...	1,000	47,000	4,000
Hay, tons...	11,925	9,434	734
Flour, bbls...	1,418,000	1,192,000	1,134,000

CINCINNATI.—Reported by D. J. Schuh, ex-secretary of the Cincinnati Grain & Hay Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	358,800	230,400	302,400
Corn, bus...	370,800	418,800	250,800
Oats, bus...	428,000	348,000	182,000
Barley, bus...	9,100	6,500	.....
Rye, bus...	3,600	8,400	4,800

CLEVELAND.—Reported by F. H. Baer, traffic commissioner of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	94,362	45,498	1,611
Corn, bus...	287,634	435,863	2,007
Oats, bus...	309,014	149,954	221
Barley, bus...	8,804	3,411	.....
Rye, bus...	1,079	3,701	.....
Hay, tons...	1,152	1,201	13

DULUTH-SUPERIOR.—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	2,495,333	2,622,391	242,429
Corn, bus...	65,213	2,153,718	.....
Oats, bus...	34,559	130,760	39,486
Barley, bus...	88,127	174,969	1,808
Rye, bus...	1,949,592	2,108,714	1,572
Flax seed, bus...	75,256	126,424	30,427
Flour, bbls...	38,750	.....	107,365

INDIANAPOLIS.—Reported by secretary of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	202,000	160,300	51,000
Corn, bus...	1,710,000	1,338,400	1,101,000
Oats, bus...	1,060,000	896,000	1,242,000
Rye, bus...	22,000	9,800	25,000
Flour, bbls...	58,069	32,703	.....

KANSAS CITY.—Reported by E. D. Bigelow, secretary of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	3,484,350	3,987,900	2,899,800
Corn, bus...	1,431,250	1,615,000	865,000
Oats, bus...	936,700	377,400	664,500
Barley, bus...	15,000	73,500	27,300
Rye, bus...	8,800	20,900	8,800
Bran, tons...	3,860	3,740	28,560
Flax seed, bu...	.....	4,000	.....
Kaffir Corn, bus...	169,400	391,600	154,000
Hay, tons...	27,132	23,112	10,524
Flour, bbls...	70,200	87,750	473,525

LOS ANGELES.—Reported by M. D. Thiebaud, secretary of the Grain Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, carloads...	271	211	.....
Corn, carloads...	135	131	.....
Oats, carloads...	15	20	.....
Barley, carloads...	107	100	.....
Rye, carloads...	2	.....	.....
Seed, carloads...	4	.....	.....
Kaffir Corn, bus...	7	24	.....
Flour, bbls...	196	183	.....

MILWAUKEE.—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	222,400	79,880	274,550
Corn, bus...	1,793,740	2,243,220	1,687,914
Oats, bus...	2,172,000	1,903,500	1,812,575
Barley, bus...	780,520	971,700	259,460
Rye, bus...	251,870	229,230	272,400
Timothy seed, lbs...	1,235,551	341,001	2,216,330
Clover Seed, lbs...	248,606	436,399	1,912,723
Flax Seed, bu...	101,274	40,010	73,924
Hay, tons...	1,296	1,524	1,418
Flour, bbls...	78,840	100,690	90,590

MINNEAPOLIS.—Reported by G. W. Maschke, statistician of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	10,449,950	6,972,550	3,899,960
Corn, bus...	820,440	1,974,800	410,170
Oats, bus...	1,891,560	2,130,490	2,801,550
Barley, bus...	1,314,350	1,061,440	1,121,060
Rye, bus...	841,800	366,220	172,000
Flax Seed, bu...	319,480	254,240	82,000
Hay, tons...	3,191	2,751	294
Flour, bbls...	146,863	79,870	1,497,763

NEW ORLEANS.—Reported by Geo. S. Colby, chief grain inspector and weighmaster of the Board of Trade, Ltd.:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	539,354	1,707,691
Corn, bus...	1,972,920	5,444,888
Oats, bus...	77,995	70,255
Rye, bus...	248,571	77,142

NEW YORK CITY.—Reported by H. Heinzer, statistician of the Produce Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	6,798,400	4,447,600	3,145,000
Corn, bus...	1,270,500	3,231,200	1,091,000
Oats, bus...	1,304,000	2,858,000	845,000
Barley, bus...	394,400	386,900	307,000
Rye, bus...	329,900	320,600	117,000

OMAHA.—Reported by F. P. Manchester, secretary of the Produce Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	1,545,600	1,178,800	1,369,200
Corn, bus...	1,541,400	3,053,400	2,174,200
Oats, bus...	1,520,000	694,000	1,778,000
Barley, bus...	76,800	88,000	154,400
Rye, bus...	102,200	183,400	88,200

PEORIA.—Reported by John R. Lofgren, secretary of the Board of Trade:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	92,400	220,400	101,700
Corn, bus...	1,601,750	1,657,435	1,451,900
Oats, bus...	1,401,600	981,700	1,479,000
Barley, bus...	23,800	40,600	25,200
Rye, bus...	10,800	20,200	12,000
Mill Feed, ts...	31,040	18,360	27,792
Hay, tons...	1,520	650	190
Flour, bbls...	157,600	271,860	130,000

PHILADELPHIA.—Reported by S. S. Daniels, secretary of the Commercial Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	3,955,739	3,168,906	3,262,915
Corn, bus...	1,660,008	2,419,427	1,504,813
Oats, bus...	261,998	150,135	2,035
Barley, bus...	4,439	1,496	1,746
Rye, bus...	43,298	97,323	17,143
Flour, bbls...	250,202	230,677	40,559

PORTLAND, ME.—Reported by Howard H. Waldron, traffic manager of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	1,976,325	1,697,100	1,925,422
Corn, bus...	17,025	433,995	53,819
Oats, bus...	325,324	282,558	205,011
Barley, bus...	471,356	470,951	208,333
Rye, bus...	135,320	54,957	.....

ST. LOUIS.—Reported by Eugene Smith, secretary of the Merchants' Exchange:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, bus...	2,312,821	2,451,443	2,035,090
Corn, bus...	2,844,618	2,210,000	2,184,990
Oats, bus...	3,285,670	1,886,000	2,608,000
Barley, bus...	46,400	76,800	45,310
Rye, bus...	23,100	16,500	16,310
Kaffir Corn, bus...	18,000	88,800	6,920
Hay, tons...	12,086	8,779	7,160
Flour, bbls...	409,840	412,770	573,800

SAN FRANCISCO.—Reported by H. C. Bunker, chief inspector of the Chamber of Commerce:

Receipts		Shipments	
1923	1922	1923	1922
Wheat, tons...	2,448	6,007	.....
Corn, tons...	2,038	1,923	.....
Oats, tons...	1,130	2,644	.....
Barley, tons...	20,087	16,875	.....
Bran, tons...	247	183	.....
Hay, tons...	4,693	3,966	.....

SUPERIOR.—Reported by E. W. Fiedler, chairman of the Grain & Warehouse Commission:

	Receipts		Shipments	
	1923	1922	1923	1922
Wheat, tons..	2,448	6,007	.....	.....
Corn, tons...	2,038	1,923	.....	.....
Oats, tons...	1,130	2,644	.....	.....
Barley, tons..	20,087	16,875	.....	.....
Bran, tons...	247	183	.....	.....
Hay, tons....	4,693	3,966	.....	.....

GRAIN TRADE PATENTS

Bearing Date of January 9, 1923

Fastening means for grain doors.—Thor Rustad, Erskine, Minn. Filed August 3, 1923. No. 1,441,376.
Grain cleaner.—Robert H. Owen, Butte, Mont., assignor of one-third to E. F. Maginna and one-third to M. H. Gleason both of Butte, Mont. Filed September 10, 1919. No. 1,441,296.

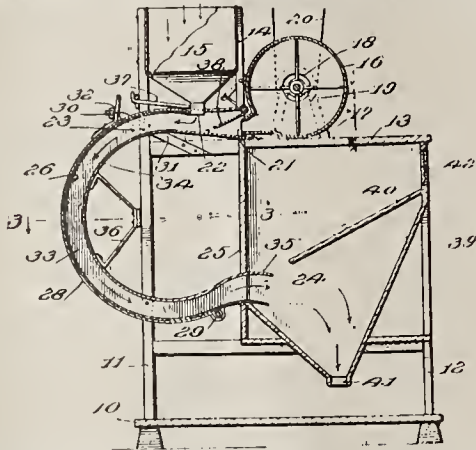
Grain door.—Jacob J. Libby, Fostoria, Ohio. Filed February 4, 1921. No. 1,441,512.

Bearing Date of January 15, 1923

Grain door for freight cars.—Allen I. Wood, Beardstown, Ill. Filed March 26, 1921. No. 1,442,553.

Seed scarifier.—Arthur Johnson, Blackfoot, Idaho. Filed May 20, 1922. No. 1,442,275. See cut.

Claim: A seed scarifier comprising in combination, a casing having a channel providing a curved path, a cover for the outer surface of said channel hinged adjacent one end, a sheet of abradant material lining the inside of



said cover, means to hold said cover closed and to clamp said abradant material, a fan to deliver a blast of air to said channel, a seed hopper closely adjacent said fan to deliver the seed in a sheet-like stream into said blast, a chest at the discharge of said channel, means in said chest to separate the air and seed.

Bearing Date of January 23, 1923

Bag darning machine.—James R. Moffat, and Ralph S. Kelso, Chicago, Ill., assignors to Union Special Machine Company, Chicago, Ill., a corporation of Illinois. Filed July 20, 1920. No. 1,442,816.

Grinding mill.—Sherman C. Roberts, Denver, Colo. Filed June 18, 1919. No. 1,442,276.

Cross grooved pulley.—Milton F. Williams, St.

Louis, Mo., assignor of 49/100 to Harold M. Plaisted, St. Louis, Mo. Filed March 21, 1921. No. 1,443,514. See cut.

Bearing Date of January 30, 1923

Crusher.—Harold M. Plaisted, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Company, St. Louis, Mo., a corporation of Missouri. Filed May 13, 1922. No. 1,443,757.

Grain bin.—Darius T. Phillips, Chicago, Ill. Filed April 28, 1919. No. 1,443,500.

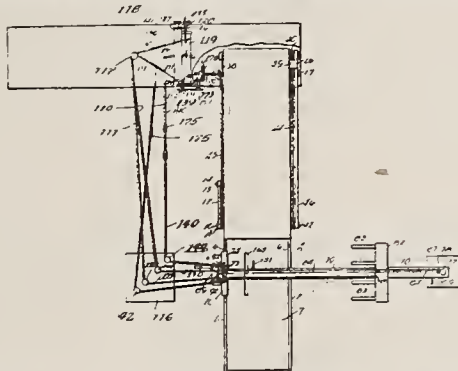
Grain separator.—Clarence W. Carter and John J. Varusky, Minneapolis, Minn., assignors to Carter-Mayhew Manufacturing Company, Minneapolis, Minn., a corporation of Minnesota. Filed April 25, 1921. No. 1,443,524. See cut.

Bearing Date of February 6, 1923

Scale.—Richard J. Zanone, New Albany, Ind. Filed July 7, 1921. No. 1,444,019.

Grain transferring device for separators.—Benjamin B. Stauffer, Chicago, Ill. Filed April 25, 1921. No. 1,444,142. See cut.

Claim: In a grain transferring device, a frame having vertically edgewise disposed side members, a vertical standard positioned in adjusted position along one side of the frame, a second vertical standard positioned a spaced distance from the first named standard, a vertically adjustable track carried by said standards to ex-



tend across the frame, a fork arranged for reciprocation along the track, said fork being provided with arms adapted to shear grain from a stack contacted thereby during the movement of the fork toward the frame, and means for reciprocating the fork.

Bearing date of February 13, 1923.

Grain cleaning machine.—Andrew V. Cleland, Minneapolis, Minn. Filed August 1, 1921. No. 1,445,069.

Grain door removing device.—William Sundberg, Chicago, Ill.; Elizabeth L. Sundberg, Administratrix, of said William Sundberg, deceased. Filed June 11, 1920. No. 1,445,184.

COAL

MARCH OUTPUT OF SOFT COAL

Preliminary estimates by the United States Geological Survey based on the railroad shipments place the total March output of soft coal, including lignite and coal coked at the mines, at 46,807,000 net tons, an increase over the production in February of approximately 11 per cent. The principal factor responsible for this increase was the greater number of working days in March. The average daily rate of production was slightly less than that in February. A recent canvass of commercial consumers of soft coal indicated that production during February was insufficient to meet the demand, and the reserve supply in the hands of such consumers decreased 2,000,000 tons during the month. There are no indications that consumption declined during March, and if the February rate was maintained it seems probable that there was a further draft on stocks.

TO DISCUSS COAL PROBLEM

One of the group meetings of the annual convention of the Chamber of Commerce of the United States, to be held in New York City on May 8 to 10, will be devoted to the discussion of the coal problem. In making the announcement the Chamber of Commerce said:

"The national resources group will devote its time to coal entirely as it is both a subject of pressing current interest to American business and at the same time links up directly with the transportation problem which forms the major topic of the annual meeting to be considered in both general and group sessions. As a base for the coal discussion, presentation is first to be made of a full review of the work of the United States Coal Commission. The name of the speaker to whom this task has been assigned has not yet been announced but plans for the meeting call for an authoritative outline of the commission's methods and progress.

"To reach other aspects of the question, of particular interest to manufacturers and all other industrial users of coal, an analysis of the labor situ-

ation at the mines and its effect on the cost of industrial coal will be presented. It is expected that the speaker selected for this portion of the discussion will be a man who has intimate knowledge of the subject from his own business experience, coupled with a knowledge of what other coal operators have found that is sufficiently far-reaching to give his statements authority.

"Against the background of information and understanding of the coal problem these two addresses will furnish, will be presented the suggestion for seeking an economic solution. The program gives no hint, however, as to the form in which such a plea is to be made or who is to make it.

"Before the general sessions of the national chamber the coal problem will have only such consideration as is incident to the fact that it is vitally concerned in the transportation solution toward which the whole machinery of business is urging. The importance attached to treatment of that problem at New York is clearly indicated in the recent statement to Elliot H. Goodwin, resident vice-president of the national chamber, announcing that 'the most transportation questions' would be among the general session speakers."

STABILIZING THE COAL INDUSTRY

The one great hope of stabilizing the coal industry in the United States and of making it provide year round employment for the miners, rests in the solution of the problem to make safe the storage of bituminous coal. This conclusion was reached recently by investigators of the United States Bureau of Mines and the Carnegie Institute of Technology who have made a study of the spontaneous combustion of soft coal. The report issued by Joseph D. Davis, fuel chemist, and John F. Byrnes, research fellow, who conducted the investigation said in part:

"If some system could be devised whereby coal could be stored economically, with little deterioration, and danger of spontaneous combustion the mines would be operated practically the whole year—say, 300 working days, instead of 180

to 270 days as in 1920—at a uniform rate of production. Unfortunately, no such general storage system has yet been devised.

"The loss by deterioration of coal at ordinary temperatures is small when compared with that caused by rapid oxidation at elevated temperatures and the loss by spontaneous ignition. To overcome the hazards of self-heating and spontaneous combustion, various means of storage have been suggested, such as storing under water or in an atmosphere of carbon dioxide; screening the coal and storing only large sizes; cooling the coal pile by means of ventilating pipes; covering the coal pile with sand or with a layer of fine coal to prevent breathing of the heap, and so forth. Many of these methods do more harm than good, and others are prohibitive on account of their cost.

"The tendency of coals to fire spontaneously differs with their age—the younger coals being the most dangerous. No case has been recorded in which anthracite coal fired spontaneously—even fines and slack storing safely. At the other extreme is lignite, which can not be stored, even in lumps, with safety, except under water. Between these two extremes are the various grades of bituminous coals, the class which is most commonly stored. The liability of different bituminous coals to fire varies widely on account of differences in the coal; but, broadly speaking the bituminous coals of the eastern part of the United States store better than the coals of the Middle West. These, in turn, are safer to store than the sub-bituminous coals of the intermountain region.

"The solution of the problem of spontaneous combustion may lie in the microscopic examination of coals and its correlation with the rate of heating. Coal is composed of three parts, namely, anthraxylon, or bright coal attritus, or dull coal, and mineral charcoal, and may be separated into almost pure samples of each. These three constituents differ in their ease of oxidation and rate of heating. Tests indicate that the anthraxylon is the constituent that heats first in the spontaneous heating of coal.

"As the results of the experiments of Messrs. Davis and Byrne, it is stated that the presence of fines in a coal pile should be avoided. Coal should be handled as little as possible and should be screened wherever practicable before storing. Coal coarser than ¼ inch showed no rapid self-heating throughout the experiments.

"Instead of hastening spontaneous combustion, partly oxidized coal seems to act as a deterrent when mixed with fresh coal. It appears that the danger in mixing two grades of coal, or in storing coal on the same pile at different times arises from physical rather than chemical causes. If no heating has occurred at the surface of the heap, it is safe to pile more coal on top, provided there is no accumulation of fines at the contact of the new and old coal. A mixture of two kinds of coal will heat more rapidly than the poorer of the two.

"On account of the low conductivity of coal, cooling by artificial ventilation is almost impossible unless the air reaches every part of the pile. Generally the air travels through the stack in currents, and exerts no cooling effects on parts a short distance away from its channels. Exclusion of air as much as possible, in order to stop oxidation, is more successful than attempts at ventilation to dissipate the heat generated.

"The results of these tests are summarized in Bulletin 3, Coal-Mining Investigations series, which is distributed by the Carnegie Institute of Technology, Pittsburgh, Pa., at a price of 25 cents."

A coal shed is being built to the house of the Farmers Grain Company at Devils Lake, N. D.

The grain, lumber and coal business of the Crowell Lumber & Grain Company, operating at Wayne, Neb., has been bought by Carl Madsen.

The business of the Enterprise Grain Company at Hollinger, Neb., has been purchased by W. H. Zieme who has added coal to the business.

J. L. Pennock has absorbed the retail coal, grain and feed business of H. M. Long at Oxford, Pa., and hereafter will operate as J. L. Pennock & Co.

The retail coal and grain business of W. H. Isenhour at Radnor, Ind., has been purchased by James Washburn and Luther Greenwood of Lafayette.

The name of the Farmers Grain, Livestock & Supply Company at Stratton, Neb., has been changed to that of the Farmers Co-operative Coal Company.

The Brandon, Wis., yard of Frank G. Henske, dealer in coal and lumber, has been purchased by the Stillmeyer Bros., who operate a retail coal and grain business at Fairwater, Wis.

The Edmond Elevator & Implement Company was recently incorporated at Hastings, Mich., by Carey W. Edmonds who has been conducting a retail coal, implement and elevator business. Its capital stock is \$50,000.

A grain and coal business is to be conducted at Cosmos (r. f. d. Buffalo Lake), Minn., by William Hoppenstedt. He was formerly manager of the Farmers Elevator Company at Fairfax. Coal storage sheds have been erected.

HAY, STRAW AND FEED

ILLINOIS HAY

According to the report of the state statistician, the reserves of hay remaining on the farms in Illinois are ample, but only a moderate amount is being marketed due to bad roads and tendency of farmers to hold for a more favorable price. Clover has come through the winter in fair condition. Grass seeding has begun in some places with seed supplies generally ample.

MILDEWED CLOVER HARMLESS

In answer to many queries from livestock men as to whether or not mildewed Clover was poisonous to cattle, the Ohio Experiment Station made a test which indicates that this fungus is harmless.

Mildewed Clover in both the hay and the green state was fed to guinea pigs for two weeks with no bad results whatever. These small laboratory animals are known to be highly sensitive to any poisonous matter in their diet.

These results agree with those obtained at the Tennessee Experiment Station, where horses, cattle, sheep and swine were fed mildewed Clover for two weeks with no ill effects. If hay is very dusty from the spores of this fungus, it should be moistened if fed to horses.

HINTS ON MARKETING OF HAY

When marketing hay choose the method best suited to your business facilities. When consigning hay choose only markets having a broad demand. Small markets are not usually good consignment markets.

When selling to distant buyers choose only reliable and responsible parties and ask your bank or commercial agency to furnish you the necessary information as to their reliability and financial standing.

When deciding where to sell your hay, consult local and national market reports freely.

When confirming sales or purchases of hay, repeat all terms of the sale in your confirmation. Always follow billing instructions of the buyer when shipping hay on commission or direct sales. Prepare invoices carefully and forward promptly for each car of hay shipped.

Do not present claims to railroads or other parties for hay losses unless supported by adequate proof of the claim.

MONTHLY FEED MARKET REVIEW

BY G. C. WHEELER

U. S. Department of Agriculture

Feed quotations are keeping trend with the advance in dairy products prices. An analysis of conditions in the feed markets during the past month and those which prevailed during March, 1922, develops many interesting comparisons.

It may be safely asserted that supply and demand conditions for feedstuffs are materially affected by dairy products prices and it is interesting to note that while prices for butter and cheese during the week of March 24 showed an advance of approximately 25 per cent over those which prevailed on March 25, 1922, a proportionate increase took place in the prices of wheat and corn feeds.

Weather conditions, usually a very important factor, do not appear to have been very different in the more important feed consuming sections during March than they were during that month last year which no doubt largely accounts for the similarity in supply and demand conditions during the periods under discussion.

The relation between prices of wheat feeds, corn feeds, and oil meals, however, showed marked changes. While wheat and corn feeds were quoted at an approximate advance of 25 per cent over the prices which prevailed last year oil meals were available at \$3 to \$7 per ton below the prices asked last year.

The greatest decline took place in linseed meal. This was due to the fact that because of the European competition in oil last year and the inability of mills to obtain flax the output of this feed was rather light, which, of course, tended to keep prices firm and which also brought about a better than usual demand from the Northwest for cotton seed feeds.

This year the situation is quite different and with a constant and rather heavy demand for linseed oil from the paint industry the offerings from mills of meal and cake have been quite heavy. As is usually the case, prices of other oil meals declined in harmony though not to the same extent.

The decline in cottonseed meal, while in a measure the result of the serious decline in linseed meal, was very much due to the fact that the present high freight rates have dislocated the previous

channels of consumption for this commodity to a considerable extent. For example, before the war, Texas shipped a considerable quantity of meal to the Northwest. The present rate of freight practically makes it impossible for the northwestern buyer to use cottonseed meal compared to other feedstuffs. Also the high freight rates have to a large extent curtailed the consumption of cottonseed meal in the Northeast. The inquiry from tobacco growers also has been very light this year, and because of the availability of ammoniates which are cheaper in price than cottonseed meal, it is generally believed that fertilizer manufacturers will not buy as extensively as they did during the spring of 1922.

Opinions differ widely as to the probable trend of the market for the next 30 days. While much will depend on weather and pasturage conditions, there are several factors which are generally interpreted as tending toward lower prices which may be briefly summed up as follows:

(1) Ample interior supplies to meet the present demand.

(2) Probable increased output and deliveries of linseed meal and wheat feeds.

(3) Decreased demand from dairymen and feeders, because of the near approach of the pasturage season.

(4) Reluctancy to stock up at present prices.

It is generally believed that there will be no material change in the prices of wheat feeds during the next two or three weeks, because it is not thought that the output of flour mills will be much heavier than it has been during the past month. This is due to the fact that on account of comparatively large stocks, the flour mills in the Northwest as well as in the Southwest are experiencing considerable difficulty in obtaining shipping directions on flour sold some time ago, hence their output of wheat feeds is expected to be light for some time.

ALFALFA'S PLACE IN KANSAS

Kansas is rapidly losing its place as a grower of Alfalfa, says Secretary J. C. Mohler of the Kansas State Board of Agriculture, with a decrease of 154,110 acres last year, and an average decrease of 45,000 acres per year for the last five years.

In commenting further, Secretary Mohler said: "Various reasons are assigned for this rapid decrease, among which were the late freezes and the ravages of the pea aphid in the spring of 1921, but the one big fact which stares us in the face is that the Alfalfa acreage in this state is rapidly decreasing and Kansas is losing its pre-eminence in the production of this valuable crop."

"Ever since 1911 Kansas has had more than a million acres in Alfalfa and has ranked first among the states in its production until last year, when the acreage was less than at any time during the last decade."

"The value of the Kansas Alfalfa crop, on the farms where grown, has averaged approximately \$50,000,000 per year for the five year period ending with 1921, and in one of those years it had a value of more than \$60,000,000, but the crop of 1922 showed a value of only \$23,000,000 including the seed crop."

"Kansas ranks among the first 10 states of the union in beef and dairy cattle, in hogs and horses, the value of poultry products, the value of dairy products, the value of all farm property and has more automobiles on the farm than has 45 of the 48 states."

"Just how much credit for this high standing in the short span of 32 years is due to Alfalfa, none can say, but it is undoubtedly large and history shows that real prosperity in Kansas was not conspicuous until after Alfalfa and the grain sorghums, both of which came in the early 90's, had become general crops in the state."

"It is believed that nothing better could happen along crop production lines in Kansas than to largely increase the state's Alfalfa acreage in 1923."

NEW KANSAS FEED LAW

The legislature of the State of Kansas recently passed a new feedstuffs law to become effective as soon as published in the official state paper. The law repealed Sections 4117 to 4129 inclusive of the General Statutes of Kansas, 1915.

In commenting on the new law, Secretary E. J. Smiley of the Kansas Grain Dealers Association summarizes the bill as follows:

"The term 'Commercial Feeding Stuffs' shall be held to include all feedingstuffs used for feeding livestock and poultry except the following: (a) Wholeseeds or grains (b) the unmixed meals made directly from and consisting of the entire grains of corn, wheat, rye, barley, oats, buckwheat, flaxseed,

Kaffir and Milo. (c) Whole hays, straws, cottonseed hulls and corn stover, when unmixed with other materials. (d) all other materials consisting of 60 per centum or more of water."

Those of you who operate feed mills in your elevators have been compelled to register with the Agricultural College at Manhattan, paying a registration fee of \$1, for the unmixed meals, made from the different cereals above mentioned, and in addition, you have been compelled to tag all parcels or containers containing these unmixed meals in offering same for sale. As soon as this act is printed in the official state paper, which will be within the next 30 days, it will not be necessary for you to make application for the registering of these several feeds above mentioned, and you will be further relieved of the trouble and annoyance of tagging all sacks or lots of feeds sold to the consumer. There is also a provision in this act applying to the manufacturer or seller of any poultry feed. Under the act manufacturers of poultry feed will register with the State Board of Agriculture instead of the Agricultural College at Manhattan, every brand of poultry feed offered, or held for sale or sold within the state. The registration fee for each brand will be only \$1 per year. The administration of this law will be by the Board of Agriculture instead of the Agricultural College, and we are very sure that Mr. J. C. Mohler, Secretary of Agriculture, in administering the act will not resort to the bureaucratic methods carried out by the Agricultural College at Manhattan."

LARGE PERCENTAGE OF ALFALFA HAS BEEN MARKETED

A survey just completed by the United States Department of Agriculture indicates that the movement of hay during the past three months has been about normal with a few exceptions. About 65 per cent of the marketable surplus of Timothy was reported marketed up to March 15. This was about 10 per cent less than the percentage marketed to March 15 last year. Because of the increased production, however, this year a larger volume of Timothy has been marketed this season than during the corresponding period last year and a larger volume yet remains to be marketed. The movement has been especially light from Michigan, New York and Wisconsin, where approximately 50 per cent of the hay remains to be marketed.

About 85 per cent of the Alfalfa has been shipped out which, considering the light production, leaves only a small volume yet to be sold. The larger supplies are reported from Utah, Idaho, Colorado and Missouri.

The movement of Prairie has been much larger than last year. Slightly over 80 per cent has been marketed compared with about 65 per cent to March 15, 1922.

Bad road conditions and a scarcity of cars have retarded the movement in the Central West while severe wintry weather has held up shipments in New York and New England. Mild weather favored marketing in the Southwest where the movement was larger.

The general demand was about normal but large local supplies in the South cut down somewhat the demand for Timothy from the central western markets. High freight rates restricted marketing in the far western states.

Timothy prices at the principal markets are about \$1.50 per ton lower on an average than at the corresponding time last year but have advanced about \$2 per ton during the present crop year.

Alfalfa prices have advanced about \$2.50 per ton during the marketing season but are on practically the same level as April 1, 1922.

Prairie also has advanced about \$2.50 per ton and is about \$1 above last year's prices.

Stocks are about normal and the prospects of any material increase in the demand are few.

FEES AND CHARGES AT PHILADELPHIA

The Board of Directors of the Philadelphia Commercial Exchange has ratified the schedule of fees and charges which were adopted at a recent general meeting of the hay and straw trade of that city. These fees and charges are now in force and binding upon the members of the hay and straw trade division of the Commercial Exchange.

Partial Inspection— FEES

For partial inspection of baled hay in cars, warehouses, or elsewhere, \$1 per car lot or fraction thereof, or if not in car lots \$1 for 12 tons or less, amounts in excess of 12 tons to be calculated at the rate of 8½ cents per ton or fraction thereof. The fee to be calculated on the entire amount of the hay in the lot covered by the certificate.

For partial inspection of loose hay \$1 for 5 tons or less, amounts in excess of 5 tons to be calculated at the rate of 20 cents per ton or fraction thereof. The fee to be calculated on the entire amount of the hay in the lot covered by the certificate.

Complete Inspections—

For complete inspection of hay in cars, warehouses, or elsewhere, in cases where each individual bale in the lot is not inspected \$1 per car lot or fraction thereof or when not in car lots \$1 for 12 tons or less, amounts

in excess of 12 tons to be calculated at the rate of 8½ cents per ton or fraction thereof. The fee to be calculated on the entire amount of hay in the lot covered by the certificate.

The minimum fee for a complete bale inspection shall be \$3. When the total fee for any complete bale inspection at the rate specified below would amount to more than the minimum, the fee shall be fixed as follows:

For small or medium bales of hay, from 12"x18" to 17"x22" in size, 2 cents per bale.

For large bales of hay, exceeding 17"x22" in size, 4 cents per bale.

Sample Inspections—

The fee for a sample inspection shall be 75 cents.

Reinspections—

The fee for a reinspection of hay shall be the same as the fee for an inspection of the same kind.

Appeal Inspections—

The fee of an appeal inspection shall be three times the fee charged for a complete inspection, or sample inspection, from which the appeal is taken, except that when it is found that there was a material error in the complete inspection, complete reinspection, or sample inspection from which the appeal is taken, no fee will be charged.

CHARGES

If the work of the inspector be delayed, due to lack of sufficient help to handle the hay rapidly, or any similar cause, he may make, in addition to the above charges, a service charge of 80 cents for each hour of such delay.

The above fees and charges shall apply only to inspections of hay located in public warehouses and railroad terminals in Philadelphia. For hay located elsewhere such further charges may be made as are necessary to cover traveling expenses, cost of labor to handle the hay, and other items paid or incurred in connection therewith, together with an additional service charge of \$8 for each 24 hours used by the inspector in making the inspection, calculated from the time he leaves his office until his return thereto. Fractions of 24 hours will be calculated at the rate of 80 cents per hour with \$8 as a maximum.

HAY WEAKER IN NEW YORK

BY C. K. TRAFTON

Notwithstanding a small decline in prices at the beginning of the month the hay market has ruled surprisingly steady. To be more exact while a small setback occurred at the start, the decline was on the whole somewhat insignificant, all things considered. It must be admitted that the buying element manifested much surprise and disappointment because the decline was far smaller than they had anticipated. This was particularly noticeable in the instance of Choice Timothy or Light Clover Mixed which continued decidedly scarce and particularly as compared with common or inferior descriptions.

Notwithstanding the alleged astonishment on the part of buyers it was not particularly difficult for sagacious and unbiased dealers to comprehend the failure of the market to weaken materially. It was due to a great extent to the disappointing receipts which proved to be appreciably smaller than generally counted on. Virtually all unprejudiced members of the trade were free to confess that they had looked for some enlargement in the movement from the interior as soon as the weather became seasonably milder and snow had generally disappeared.

In fine, it was entirely reasonable to assume that farmers and country shippers would feel more willing to make sales for forward shipments as soon as the roads had become more passable. This certainly seemed entirely in order in view of the fact that hauling to country stations by farmers had for several weeks been greatly restricted or almost suspended because of the low temperature and almost impassable conditions of the roads because of the protracted snow storms. It was largely for this reason, as mentioned in previous reviews, that the big advances formerly noted were rendered possible. Naturally, therefore, it is by no means strange that many were amazed when the supply failed to become decidedly heavier.

In the judgment of many keen observers the comparatively moderate shipments from the interior were partly or largely attributable to the scarcity of box cars. Moreover it was also asserted in some quarters that the failure of the movement to increase to a greater extent was partly due to the longer drouth in parts of the South, but especially in the Southwest, which led to larger shipments than usual in that direction.

Still, it is the consensus of opinion among dealers of ripe and untrammelled judgment that the failure of farmers and country shippers to ship larger quantities to this market was due to the fact that the weather has been decidedly backward, as it remained much colder with additional snow-fall later this season than ordinarily. Consequently there are numerous well-informed buyers who are inclined to buy in a sparing fashion for the moment as they feel convinced that there will be further reductions in cost as soon as the weather becomes clear and warm. Presumably this opinion was partly based on the almost general assumption that the weather practically all the time during

the winter has been favorable for soil conditions. There has been such an extraordinary abundance of snow that the ground has been well protected and hence the roots have not been injured. Needless to say the soil is well saturated with moisture and hence the crop will doubtless make a satisfactory start as soon as the warm weather sets in.

Because of the great scarcity of the top grades many buyers have been compelled to take good grades such as choice No. 3 and No. 2 instead, and hence these have occasionally been quoted almost at the same price as No. 1. Moreover this was particularly true of markets in the Borough of Brooklyn, where supplies were especially meagre on numerous occasions and on this account it was frequently found that small bales sold promptly at the same price as large. In the meantime prices ruled comparatively low in Manhattan markets and notably at 33rd street, where supplies were relatively liberal.

Late in the month there was even more striking unsettlement with a more pronounced tendency to weakness. Still it must be admitted that the weaker trend was to a large extent particularly confined to common or poor grades. Receipts have been somewhat excessive in inferior qualities, in part from Canada, it being almost impossible to sell such trash even though material concessions on cost have been made. In numerous instances these poor grades have sold as low as \$15@20 per ton and in nearly every case the money received was hardly sufficient to cover freight and other charges. Indeed, in some cases it was averred that there was an actual loss to the shipper.

While receipts showed no essential enlargement

NEW FEED BRANDS

"RATTLER" horse and mule feed. Nowak Milling Corporation, Hammond, Ind., and Buffalo, N. Y. Filed October 16, 1922. Serial No. 170,780. Published March 13, 1923.

"MINERAL LICK" stock food. Myrtle Hill Lytle, doing business as Essentials Mineral Company, Salem, Ore. Filed April 1, 1922. Serial No. 161,630. Published and registered March 13, 1923.

"ALGRANE" horse, cattle and poultry feeds. The H-O Cereal Company, Inc., Buffalo, N. Y. Filed September 1, 1922. Serial No. 168,969. Published and registered March 13, 1923.

"BLUE HORSE SHOE" stock, dairy and poultry feed. Whyte Commission Company, Pine Bluff, Ark. Filed September 5, 1922. Serial No. 169,109. Published March 20, 1923.

"MULE SHOE" stock, dairy and poultry feed. Whyte Commission Company, Pine Bluff, Ark. Filed September 5, 1922. Serial No. 169,110. Published March 20, 1923.

"KEEP-FIT" poultry feeds. The H-O Cereal Company, Inc., Buffalo, N. Y. Filed September 1, 1922. Serial No. 168,968. Published March 20, 1923.

"WOODS PAMUNKEY SCRATCH FOOD" for fowl. T. W. Wood & Sons, Richmond, Va. Filed August 3, 1922. Serial No. 167,792. Published March 20, 1923.

"GRADE A" stock and poultry feed. Miller-McConnel Grain Company, Kansas City, Kan. Filed July 3, 1922. Serial No. 166,465. Published March 20, 1923.

"BIG DIAMOND" scratch feed, dairy feed, hog feed, horse and mule feed. John M. Wilson, doing business as Meridian Grain & Elevator Company,



it was the consensus of opinion that the arrivals will soon become heavier as advices from the interior indicated larger shipments but it was averred that a large part of this hay had been detained in transit. However this was considered merely temporary, probably due to slight congestion on certain roads. Of course, nearly all roads are striving to avoid congestion by preventing over free shipments from the interior by the issuance of permits.

Broadly, the straw market has been in a decidedly unsatisfactory shape as trade has been frequently at a stand-still because stocks have been wonderfully light. Receipts have been almost negligible and hence prices have been at a higher level. This was especially true of Brooklyn markets where choice long rye had sold as high as \$32 in large bales, but in Manhattan markets \$31 was about the top, while a few went at \$30.

Joseph Heid, E. C. Heid, and C. C. Heid are the incorporators of the Quality Feed Store, Inc., of El Paso, Texas. Its capital stock is \$10,000.

The Bloomsburg Flour & Feed Company has been organized at Catawissa, Pa. P. H. Shuman, R. L. Shuman and William B. Linville are interested.

The interest of W. J. Chambers in the Martin & Chambers Feed Store at Russellville, Ark., has been sold to Charles Brown of Pottsville, Ark.

The Pan-American Feed Milling Company has been incorporated at Toledo, Ohio, capitalized at \$10,000. Charles N. Northrup, John B. McMahon, H. L. Christopher, and Janet I. Roche and H. L. Laack are interested.

Meridian, Miss. Filed May 3, 1922. Serial No. 163,301. Published March 27, 1923.

Stock and poultry feed. Omaha Alfalfa Milling Company, Omaha, Neb. Filed August 18, 1922. Serial No. 168,429. Published March 20, 1923.

"MUTUAL COMPOUND" stock food. Carmi Winslow, doing business as Mutual Products Company, Minneapolis, Minn. Filed March 8, 1922. Serial No. 160,378. Published March 20, 1923.

"R BEST" hen food, egg mash, chick food, and chick mash. Bowman Bros. Seed Company, Concordia, Kan. Filed April 20, 1922. Serial No. 162,658. Published March 20, 1923.

"PATHFINDER" gray shorts. The Midland Flour Milling Company, Kansas City, Mo. Filed September 2, 1922. Serial No. 169,029. Published March 20, 1923.

"SALUBRENE" food for cattle, horses, sheep, pigs, and poultry. The Algin Company, Ltd., Penzance, England. Filed May 11, 1922. Serial No. 163,661. Published March 20, 1923.

"H-O STEAM COOKED CHICK FEED"—cattle, stock, bird and poultry feeds. The H-O Cereal Company, Inc., Buffalo, N. Y. Filed November 18, 1921. Serial No. 155,559. Registered and published March 27, 1923.

"RED HORSE SHOE" stock, dairy, cattle, and hog feed, and wheat flour. Whyte Commission Company, Pine Bluff, Ark. Filed September 5, 1922. Serial No. 169,107. Published March 27, 1923.

"GREEN HORSE SHOE" stock feed. Whyte Commission Company, Pine Bluff, Ark. Filed September 5, 1922. Serial No. 169,108. Published March 27, 1923.

"QUISENBERRY QUALITY BUTTERMILK GROWING MASH" poultry feed. Quisenberry Feed

Manufacturing Company, Kansas City, Mo. Filed June 1, 1922. Serial No. 164,774. Published April 3, 1923.

"GRASS VALLEY FARM" stock feed. J. Allen Smith & Co., Knoxville, Tenn. Filed September 5, 1922. Serial No. 169,089. Published March 27, 1923.

"BLUE COW" feed for horses, cattle, hogs and chickens. Mountain City Mill Company, Chattanooga, Tenn. Filed March 9, 1922. Serial No. 160,119. Published March 27, 1923.

"WONDER" prepared feed for animals, comprising feed for poultry and livestock. Arcady Farms Milling Company, Chicago, Ill. Filed March 18, 1922. Serial No. 160,847. Published March 27, 1923.

"LARRO" dairy and cattle feed. The Larrowe Milling Company, Detroit, Mich. Filed February 26, 1922. Serial No. 159,587. Published April 3, 1923.

"LARRO" dairy and cattle feed. The Larrowe Milling Company, Detroit, Mich. Filed February 26, 1922. Serial No. 159,588. Published April 3, 1923.

"LARRO" dairy and cattle feed. The Larrowe Milling Company, Detroit, Mich. Filed February 26, 1922. Serial No. 159,589. Published April 3, 1923.

"AMERICAN DAIRY RATION" dairy feed. American Milling Company, Peoria, Ill. Filed May 15, 1922. Serial No. 163,848. Published April 3, 1923.

"QUISENBERRY QUALITY BUTTERMILK CHICK STARTING FOOD" poultry feed. Quisenberry Feed Manufacturing Company, Kansas City, Mo. Filed May 22, 1922. Serial No. 164,265. Published April 3, 1923.

"QUISENBERRY QUALITY HUSKY CHICK SCRATCH GRAIN" poultry feed. Quisenberry Feed Manufacturing Company, Kansas City, Mo. Filed June 1, 1922. Serial No. 164,773. Published April 3, 1923.

O. J. Elits has started a feed store at Alva, Okla. Feedstuffs, etc., are being handled by Dickerson & Brown of Hartwell, Ga.

A feed establishment has been opened at Stephens, Ark., by H. W. Wright.

J. O. Payne has established a wholesale feed business in San Augustine, Texas.

A new feed business has been opened at Fordyce, Ark., by W. Owens of North Moro.

A feed, flour and grocery business is to be conducted at Conway, Ark., by L. N. Bolls.

A feed mill is to be installed in the warehouse of S. N. Pitzel & Co., of Walnut Ridge, Ark.

A feed and flour business has been established at Hay Springs, Neb., by Ed. H. Magowan.

A feed business has been established at Industry (r. f. d. Wakefield), Kan., by Anthony & Hunt.

Capitalized at \$5,000, the Home Flour & Feed Company has been incorporated at Carthage, Mo.

A feed mill of 15 tons' capacity per day is to be installed by W. H. Crawford at Columbus, Ga.

A wholesale and retail feed and grocery establishment has been opened at Banks, Ark., by Karl Neal.

The feed and grist mill of Charles Springer at Berryville, Ark., has been sold to Joe Minick of Marshall.

A feed mill is to be erected at Los Angeles, Calif., for the Tarkio Molasses Feed Company of Kansas City.

The hay and feed business which L. W. Lancaster has been conducting at Hillyard, Wash., has been sold by him.

The J. C. Taylor feed and grocery business at Heber Springs, Ark., has been bought by Herman H. Thompson.

A half interest in the feed and coal business of W. L. Dietz at Aurora, Neb., has been purchased by A. B. Milner.

The Royal Feed & Milling Company of Memphis, Tenn., is doubling the capacity of its warehouse and storage room.

The interest of Lee Morris in the Rolette Fuel & Feed Company at Rolette, N. D., has been sold by him to C. W. Cobler.

A feed store has been opened at Kennewick, Wash., by the Barton Grain & Feed Company. James Barton is manager.

The feed and flour business of J. W. Scott has been moved at Conway, Ark., into the Hardings Feed Store's old quarters.

A new warehouse is being erected by the Farmers Feed & Produce Company of Bountiful, Utah, near the Bamberger Railroad.

Capitalized at \$10,000, the Fulmer Feed Company has been incorporated at Everett, Wash. W. L. and Anna M. Fulmer are interested.

A feed mill at Cleghorn (Eleva p. o.), Wis., which was formerly owned by Louis Peterson has been purchased by Archie Birtzer.

To conduct a wholesale feed, business, the Collard & Meyer Company has been formed at Buffalo, N. Y., by Eugene Collard and Carleton J. Meyer. The

former was with his father in business; Mr. Meyer was for some time a member of the Chippewa Feed & Grain Company.

Articles of incorporation have been filed by the Anderson Feed Company of Commerce, Mo. Its capital stock amounts to \$150,000.

W. T. Holland has sold his interest in Holland & Watkins, feed dealers, of Andrews, N. C., to Lee Watkins, D. S. Russell and G. B. Hoblitzell.

Frank Whitehead and W. N. Wetmore have incorporated at Mt. Vernon, Wash., as the Skagit Feed & Seed Company. Its capital stock amounts to \$4,400.

N. P. Nash has entered the feed business at Hobart, Okla. He recently resigned from the executive staff of the American Milling Company of Elk City, Okla.

Thomas H. Coleman, formerly of Hartwell, Ga., has bought an interest in the H. L. Cofer & Co., of Athens, Ga., dealers in all kinds of field, garden and flower seed.

C. C. Gossett is president and J. R. Patterson, secretary-treasurer of the Patterson Feed Company, recently incorporated at Pacolet, S. C. Its capital stock is \$10,000.

A retail feed and flour business is to be conducted at Hutchinson, Minn., by Frank A. Spiering. Mr. Spiering is having a new building erected and will be ready April 1.

The interests of the Etcheverry Hay Company at Tres Pinos, Calif., have been purchased by the Lathrop Hay Company. The deal was closed by A. H. Fredson, Jr., for the Lathrop Hay Company. The Lathrop company is a pioneer institution at Hollis-

ter and a few years ago acquired the warehouses and business of the Hollister Hay Company and is now the only hay concern in San Benito County.

The capital stock of the Lassner Feed Stores at San Antonio, Texas, has been decreased from \$30,000 to \$22,500. These stores do a general wholesale and retail feed business.

A feed warehouse, 30x60 feet, is to be built at Milton, Wis., for T. A. Saunders & Son. The company is in the market for elevator supplies, electric motor and used corn cracker.

To deal in feeds and supplies, the Farmers Supply Company has been incorporated at Ladysmith, Wis. H. J. Cornelison, J. A. Boyer, Isadore Guns, W. O. Pierce and E. C. Steubs are interested.

Store No. 2 has been opened by the Jones Seed & Milling Company at Wichita, Kan., under the management of Lewis Dunn. A complete stock of seeds, feed and poultry supplies is to be carried.

A feed and flour brokerage company has been started at Columbus, Ohio, by William H. Holaday, formerly a member of the firm of Holaday & McIntosh. The old firm is now operating as J. T. McIntosh & Co.

The Conyers Livestock & Feed Corporation of Texas, has made plans for increasing its handling facilities at Orange, Texas, and has bought property there on which it will erect a warehouse and storage facilities.

The Birmingham Feed & Grocery Company was recently incorporated at Birmingham, Ala., capitalized at \$10,000. W. D. Bishop is president and treasurer; W. H. Reynolds, vice-president and manager; and E. L. Morris secretary.

FIELD SEEDS

EDUCATING THE FARMER

Educational work done by the Iowa Agricultural Experiment Association has done much to impress upon the minds of the Iowa farmer the value of using certified seed for planting. That its work is really bringing fruits is shown in the fact that during 1922, there were 8,500 acres of certified seeds planted, as compared with 7,500 acres during 1921. The good work should continue.

TO DETERMINE WEIGHT OF SEED

The problem of determining the correct weight of seed to be used in making the determination for noxious weed seeds has been given to Emma Sirrine, scientific assistant in the Federal Seed Testing Laboratory, at Washington, D. C., for solution. The announcement was recently made by the Committee on Research and Methods of the Official Analysts Association. The Association at its last meeting decided that the Research and Methods Committee should consider the matter and refer it to some member for critical study.

Any suggestions bearing upon this subject should be addressed to Miss Sirrine.

HARD SEEDS GERMINATE SLOWLY

"Hard" seeds which are found in considerable quantities in Clover and Alfalfa seed, says the seed analyst at the experiment station at Geneva, N. Y., are of doubtful germinating quality. Samples received at the station which are otherwise of high quality are found to contain large amounts of these hard seeds. The seed coat on these seeds does not permit the entrance of moisture necessary to start germination.

Many seed dealers include the hard seeds with the seeds which sprout readily in stating the germination percentage of their goods, and this is misleading to the farmer, as such figures do not show the actual amount of the seed which will sprout.

UNHULLED SWEET CLOVER

"In the last few years a large number of samples of unhulled Sweet Clover have been received at the North Dakota Laboratory," says O. A. Stevens, of the North Dakota Agricultural College. "It would seem from the letters that the information most commonly desired is an estimate of the amount of actual seed present. What should the 'pure seed' as reported by an analysis contain in such cases? A literal interpretation of the rules for testing would seem to require the inclusion of all immature pods. A germination test so made often will show a considerable per cent of dead seed, but the per cent of such by weight would be much less. Or should the analyst be expected to take the time to remove the pods and include them in inert matter? We find that the pods from fairly plump seed usually will amount to 20 to 25 per cent by weight.

"We have been blowing out the lightest pods and reporting the rest as pure seed; this will include

more or less immature seed and a note of this is frequently made. No disputes or questions have come from it so far, except that an occasional request for the per cent of hulls is made."

INSECTS IN SEEDS

The approach of summer brings again to the mind of those who handle seeds, the problem of combating insects, which multiply exceedingly rapidly during the hot weather. The United States Department of Agriculture in a recent bulletin says that careful inspection in time may save the owner of seeds much worry and loss later on. Although heating seeds to a temperature of 120 to 130 degrees Fahrenheit for a comparatively short time has been found an excellent method of killing insects, there is nothing more valuable in the average seed warehouse than scrupulous cleanliness and a good supply of carbon disulphid.

IMPORTS OF FORAGE SEEDS

The Seed Laboratory of the Bureau of Plant Industry reports the following imports of forage plant seeds permitted entry into the United States under the seed importation Act:

Kind of Seed	March 1 to March 15, 1923		July 1 to March 15, 1923	
	Pounds		Pounds	
Alfalfa	143,800	8,011,400		
Canada bluegrass	113,900	632,900		
Alsike clover	342,800	5,099,600		
Crimson clover	48,100	1,545,800		
Red clover	28,200	305,100		
White clover	21,200	379,300		
Broom-corn millet	625,300	2,480,600		
Orchard grass	21,600	768,000		
Rape	378,200	6,068,700		
Redtop		8,100		
English rye grass	37,800	1,543,600		
Italian rye grass	300	772,200		
Hairy vetch	36,800	1,294,900		
Spring vetch	171,300	1,452,700		

HULLED AND UNHULLED TIMOTHY

Desiring to find out definitely the amount of hulled seed present in Kansas seed, and the relative viability of hulled and unhulled seed, one gram of cleaned seed was taken by machinery from every sample of Timothy the Laboratory had received since the first of July, 1922. Each gram was carefully separated by hand into two piles, hulled and unhulled seed, and weight and percentage of hulled seed calculated.

It was found that the average of hulled seed present for the entire lot of samples amounted to 42.4 per cent, which is exactly 7.4 per cent higher than the Chicago Board of Trade allows for "prime grade" seed. It was also found that more than two-thirds of the samples averaged over 50 per cent, 51.2 per cent to be exact.

To determine the comparison in viability between hulled and unhulled seed, 200 seeds were counted from each pile, and 200 also from the mixed seed, in all using 600 seeds from each sample. These

600 seeds were all started on the same day under identical conditions. The usual count was taken on the fifth day, but the tests were allowed to run nine days, one day longer than usual, to give the seed ample time to reveal itself.

At the close of the time it was discovered that the result on mixed seed corresponded almost exactly to those of the original tests made earlier in the fall. But it was also found that results on the hulled seed averaged 14.2 per cent lower than those on the unhulled seed. Bearing in mind the former statement that two-thirds of the samples contained more than 50 per cent of hulled seed, it does not take a wizard at figures to see where Kansas is losing out on her 177,292 acres of Timothy, does it?—Mrs. E. P. Harling, seed analyst, Agricultural Experiment Station, Manhattan, Kan.

CANADIAN COMMISSION RETIRED

The Dominion Seed Purchasing Commission will not function this season in the purchasing of and distribution of seed grain this year. Since the establishment of the Seed Purchasing Commission under the Dominion Seed Branch in 1916 for the purpose of supplying seed grain at approximate cost to farmers in localities having a complete or partial crop failure, steady development has been made in the advancement of the trade in standard grades of seed grain, looking to the ultimate discontinuance of the operations of the Seed Purchasing Commission, at least as a governmental organization.

MILLET SEED SHIPMENTS SMALLER

According to a report of the United States Department of Agriculture, the shipments of the 1922 crop of Millet seed are smaller in the aggregate than those of the 1921 crop. This is due in part to a severe drought in important producing sections in the Southwest.

Then too, low prices paid for Millet seed during the last few years discourage many growers in those sections and elsewhere from saving a seed crop. Apparently, however, the prospect of higher prices last fall induced other growers to thresh their crop and the yield per acre in many instances was not as low as expected.

The shipments of the 1922 crop are about 7,000,000 pounds compared with approximately 7,600,000 pounds for the preceding crop, or a difference of less than 10 per cent.

REFEREE SAMPLES SENT

The official referee seed testing samples which are mailed each year to members of the Association of Official Seed Analysts have been prepared. These samples are sent to each official seed analyst in each state. During the past two years a number of additional lots of these samples have been prepared and seed analysts located with seed houses have been invited to participate in this work by undertaking the purity analyses and germination tests according to the rules which are sent with the samples.

At the recent meeting of the committee on research and methods of the association it was decided that again this year the chairman of the committee should send out these samples. This year is the last year of the three years when analysts or laboratories will be permitted to work under the resolution passed at the Toronto meeting and thereby bring their laboratory into the list of properly equipped and efficiently manned certified laboratories before the year 1924 when such list will probably be presented to the International Seed Testing Congress to be held in London.

This year the list will comprise some 14 to 16 kinds of seeds including grasses, legumes and vegetable seeds. The samples now prepared were to be mailed late in March or early in April so that analysts may take care of the work promptly after the spring rush is over.

The committee also decided that analysts located with commercial seed houses and commercial laboratories may again participate in this work providing they send formal application for the samples to the chairman of the committee. No samples will be sent unless they are desired and the analysts undertaking the work thereby agree to work under the uniform rules for seed testing. Formal applications for these samples by analysts other than the official analysts must be made promptly.

It is hoped that this year's results will show great uniformity in results reported and methods of procedure. At the next meeting of the association the referee's work for the past three years will be presented in a complete report as requested by the Association.—M. T. Munn, Experiment Station, Geneva, N. Y., Chairman of Committee on Research and Methods.

NEW SEED BILL PROPOSED IN MICHIGAN

A bill has been introduced in the Michigan legislature by Senator Leland which would work a change in the seed laws of that state. The bill, as proposed, amends the present law by providing for the seizure, by the state, of seeds suspected to be below standard or sold contrary to the provisions of the law. Heretofore, when a seed inspection case

came up, it required several weeks, before necessary steps could be taken to convict and penalize the violator.

Other provisions in the Leland Bill are that seeds offered for sale in the state, be tagged as to the percentage of foreign matter and noxious seeds contained and that packages and containers be marked with the results of germination tests to show the percentage of fertile seeds in package.

NEW YORK SEED PRICES STEADY

BY C. K. TRAFTON

Although the weather in this territory has been extremely variable, and generally decidedly unfavorable during the month under review, there is no doubt that the general feeling in the market for field seeds has improved appreciably since our last review was written. In spite of the backward season and the lack of general activity dealers display a more hopeful feeling and prices for practically all varieties are steady to firm. The majority of prices are virtually the same as quoted a month ago. Timothy, Canadian Bluegrass and Sweet Clover are slightly higher, while Red Clover is the only one to show a loss.

In Red Clover the additional loss of 1 cent has been traceable almost wholly to the lateness of the spring. As a consequence demand has been extremely slow and with ample supplies at Toledo and smaller centers certain eastern dealers became more eager to cut prices. In view of the enforced shortness of the season a fairly liberal carry-over is expected at the end of the season, but nevertheless, conservative traders look for a firmer tone in the near future as they believe that a few days of warm weather will bring in a brisk demand, heretofore held up by the unfavorable weather. French seed is offered on a basis of 22 cents duty paid, but this is too far above domestic prices to permit of business. Another month has passed without a pound of foreign seed being imported at New York.

Crimson Clover has been inactive with prices still around 16@17 cents. French shippers report that none of the 1922 crop remains and are still offering new crop seed for July-August shipment on a basis of 11@11½ cents duty-paid. Some purchases have been made on that basis. Arrivals were only 200 bags, against 740 during February.

White Clover is reported as the best seller recently in some quarters and as stocks continue extremely small some traders fear that this variety will go off the market before the new crop comes in. Although it is stated that no noteworthy quantity of really good quality is available in this country, spot prices still range from 50 to 60 cents. The best qualities offered for import are from Czecho-Slovakia at equal to 63@68 cents duty-paid. German shippers, have little to offer at about 63 cents. Little Dutch seed is offered; mainly at 53@58 cents. Arrivals were only about 130 bags, against about 100 in February.

Alfalfa is not quotably changed, being quoted on spot at 17½@19 cents. However, the tone is firmer, especially on choice qualities, as practically all the seed that could grade Canadian No. 1 has been bought for shipment to Canada, mainly at 14@14¼ cents in bond. As arrivals were extremely light, about 380 bags, against 535 in February, there are said to be only small quantities of rather poor quality seed remaining. Argentina will not have a large crop and the seed will not have as good an appearance as last year's crop owing to bad weather. Shippers there are offering for April shipment on a basis of 16½@17 cents duty-paid, and while some orders have been taken, there has been no general interest owing to lateness of arrival.

Alsike has been inactive, but prices are about unchanged. Supplies here are light, and hence holders are generally firm in their views, maintaining that when spring trade really begins Alsike, at about 4 cents under Red Clover, will receive the preference. About 500 bags were reported shipped to Denmark, but Canada is getting practically all of the export business owing to lower prices.

Timothy has advanced a fraction owing to a good eastern demand, sowing having started in parts of New York, New Jersey and Connecticut. Export trade has been quiet, about 2,470 bags being shipped, against 3,900 during February.

Grass seeds generally have been steady without activity. The export movement has been larger, including 970 bags of Bluegrass and 1,600 bags of Redtop, against 270 and 350 bags respectively during February. The Bluegrass went mainly to Denmark and the Redtop to Germany. There have been no new developments regarding English rye grass, but some light-weight Italian seed has been offered at 11½ cents f.o.b. Imports were only 340 bags, against 1,100 in February. Orchard grass is about unchanged, although imports were larger; 5,100 bags from Denmark, as against 3,540 in February. Canadian Bluegrass is ½@1 cent higher. Vetch has been quiet and featureless, the foreign situation remaining firm. Imports were only 725 bags, against 1,795 in February.

Rapeseed has been in good demand at about un-

changed prices—5¼@6 cents. Holders have remained firm owing to small imports during the past year, leading to fears that a sudden development of spring demand, recently held up, will make it necessary to buy hastily in Holland; and shippers there are still asking 6½ cents c.i.f. New York. Japan is offering at 5¼ cents c.i.f., against 5¾ cents a month ago, but this is for May-June shipment. The arrivals were only 300 bags, from the Continent, against 2,555 during February.

Meadow fescue has been moving more freely for export, shipments being about 960 bags, against 375 during February. On the other hand, there has been little doing in imported varieties. Hopes are expressed that the new crop of chewing fescue in New Zealand will be of much higher germination than the last crop. However, buyers here are cautious and hence offerings for May-June shipment on a basis of 37 cents duty-paid have resulted in little business. There were no imports during the month, compared with 350 in February.

Sunflower seed has been firm owing to a fairly good demand and further reduction of stocks. In fact, there is said to be very little around and noteworthy additions cannot be expected until June, when new crop seed will come in from Argentina. A fairly large quantity has been bought on a basis of 5.80 to 5.85 cents duty-paid. Holland is still offering on a 5.60 cents basis. As was the case during February, all of the month's arrivals came from Holland and Germany, the total being 2,440 bags, against 3,270 in February.

Canary seed has continued as a ready seller, but as stocks have been plentiful spot prices are about unchanged. While the arrivals of Argentine, Dutch, and Morocco seed were larger, aggregating 6,890 bags, against 5,570 in February, the import situation has become firmer. At present the only shipping market is Holland and dealers there have advanced their price to 4.90 cents duty-paid. Nevertheless, they are still well below the Argentine price, viz. 5.70@5.80 cents duty-paid. Moreover, there is no more Morocco seed to be obtained.

Millet arrivals were larger than generally expected, about 4,390 bags, including 2,810 from France, against the February total of only 870 bags. Still, the market has been steady owing to continued demand from feed manufacturers.

SEASONAL ACTIVITY IN SEEDS AT MILWAUKEE

BY C. O. SKINROOD

The report of the railroads in Milwaukee as to the seed movement for the past month shows that receipts of Clover seed for March were 248,606 pounds as compared with receipts for the corresponding month a year ago of 436,399 pounds. The shipments of Clover seed for the past month have been 1,912,723 pounds as compared with shipments for the corresponding month a year ago of 2,189,170 pounds. The decline in shipments from last year is therefore comparatively slight—about 200,000 pounds. Comparing receipts and shipments for the past month, the shipments have been seven or eight times as large as receipts, as would be expected at this time of the year when the movement is primarily out to the consumer.

The receipts of Timothy seed for the past month were 1,235,551 pounds as compared with receipts of 341,000 pounds for the corresponding month a year ago. The receipts were therefore between three and four times as large as a year ago. The shipments of Timothy seed for the past month from Milwaukee were 2,216,330 pounds, as compared with shipments for the corresponding month a year ago of 1,044,705 pounds. This shows shipments twice as large as those of a year ago.

Taking the Timothy movement for the past month, the receipts were 1,235,000 pounds in round numbers, while the shipments were 2,216,000 pounds in round numbers. Receipts were therefore about half of the size of shipments.

The official seed report of the Milwaukee Chamber of Commerce says the seed market became slightly easier with the progress of the season, and lessened demand from jobbers who have fairly large accumulations with which to meet the requirements of farmers and gardeners. There was no radical change in quotations, the report adds, but the trend was lower and buyers were more and more critical in their purchases. Offerings of seeds however, were found only moderate and the pressure of receipts from day to day was not heavy.

Red Clover was quoted for \$15 to \$20; Alsike at \$10 to \$15; White Clover at \$37 to \$47; the poor to good Timothy \$5.25 to \$5.75 and the choice to fancy at \$6 to \$6.75.

The seed market is very active in practically all lines, according to members of the Courteen Seed Company. The company reports, however, that in a sense this is a buyers' market because the season is unusually late. This spring is backward two and possibly three weeks, it is reported, so that all the seed trade for the spring must be concentrated into a shorter period.

The Courteen company says that high grade Clover seed is now worth from \$19 to \$20. The Alsike quotations range from \$14 to \$16, Sweet Clover rules from \$10.50 to \$11. White Clover is

very scarce and much higher, the company reports, due to the very short crop and light supply which is now available. White Clover is running from \$55 to \$60 because of this unusual scarcity. Timothy quotations are given from \$6.25 to \$6.75 for seeds of good grade.

Despite the lateness of the season and the exceptional conditions prevailing in the seed trade, the Courteen company believes that practically all of the stocks of seeds on hand will be cleaned up closely. The volume of buying is reported so large and so insistent that it will easily take care of all the seeds which are available for planting at this time.

The trade in seeds has been a trifle quiet during the past two or three weeks, according to the Kellogg Seed Company, due very largely to the extremely late season for planting in 1923. The present spring is declared to be at least three weeks late so that conditions are extraordinary in this respect.

The bad roads have kept the farmer away from town, the Kellogg company believes, so that the buying which would have been in evidence ordinarily has been prevented. This lack of buying of seeds at this time, however, means that in many instances seed orders merely have been postponed, the company reports, so that larger trade is more than probable for the remainder of the season. The Kellogg company says, however, that a season where seed buying comes so late in the year is scarcely satisfactory for the seed handler. The rush buying late in the season, scarcely offsets a steady and large volume of buying all through the entire winter period, when most of the seeds are ordinarily being moved.

The North American Company reports seed trade has been backward for some little time but with the advent of warmer weather for a week or two, a decisive turn in demand is looked for. There is every reason to look for good call for seeds, the North American officials believe. With prosperous business conditions generally, it was expected that the seed trade this spring would be enormous. Nothing has happened to change this view, the company says, except the cold and wintry weather.

While the seed market has weakened a little for the cash article, the market for futures is stronger, indicating that for the long pull the seed market is going to do better despite the weakness right now. The North American Company quotes the market at \$19 to \$21 for Red Clover, Alfalfa at \$19 to \$21, Alsike ranges from \$14 to 17, White Clover is strong at \$40 to \$55, and the Timothy trade is ruling from \$6.50 to \$7.

The question of whether a commission merchant in selling Millet seed to a seed merchant gives any guarantee was considered in an arbitration case settled recently by the Chamber of Commerce. The one party concerned was a commission merchant who made the sale for an interior shipper and the other was a wholesale seed dealer. The commission merchant argued that he sold the seed strictly up to sample and that as delivery equalled the sample, that fact being admitted by the buyer and further since nothing was said about germinating quality, the contract was fulfilled in every respect.

The answer to this by the seed merchant was that various states demand from the seed dealer that in every transaction the purity and germination powers be shown on all seeds sent out and that apparently sound seed sold to a seed merchant should show a reasonable germination percentage. The general argument put forth was that any other course would permit of misrepresentation.

The decision declared that the Millet seed was found to lack germinating qualities. The seed was practically worthless for seeding, but nothing was said in the contract, direct or implied, about germination. It was found that the commission merchant delivered just what he sold and he is not required to make guarantee as to germinating qualities. The board found that the buyer had all the facilities for testing the seed before he bought it and he was responsible entirely for the question of germination. The Board of Arbitration found that the seed should be paid for as per contract.

A seed store is to be opened at Cassville, Mo., by Mrs. Irene Robbins.

G. W. Thorpe is interested in the operation of a new seed store at Aiken, S. C.

A seed store is to be opened at Maryville, Mo., by R. S. Braniger and J. Smith.

B. T. Smith's seed and feed business at San Fernando, Calif., has been taken over by the San Fernando Feed & Seed Store. B. T. Smith has re-

tained an interest in the business and J. M. Beach is the other proprietor.

A seed and feed business was recently opened at Fertile, Minn., by G. H. Gredvig.

A new seed and feed store has been opened at Stillwater, Okla., by L. C. Shannon.

A seed department is being added to the Quicks Grocery Store of Sulphur Springs, Ark.

The seed and feed business of Chris. Bain at Rockville, Mo., has been taken over by Meyer & Son.

A seed and feed business is to be opened at Fort Dodge, Iowa, by the Purity Feed & Seed Company.

A warehouse has been opened at Springfield, Mass., by E. W. Conklin & Son Company, wholesale seed dealers.

A seed and feed business is to be opened at Beaver Dam, Wis., for Julius O. Bossman, who has leased a building there.

A store and warehouse are to be erected at Estherville, Iowa, for Burt & Jones, seed and flour dealers. It will cost \$12,000.

G. R. Baker, O. T. Moore and R. T. Clark have incorporated at Lockhart, Texas, as the Baker Seed Company. Its capital stock is \$60,000.

The W. J. Greenfield Estate at Moravia, N. Y., has been succeeded by the Greenfield Seed Store. Seeds, poultry supplies and other general lines are to be handled.

E. F. Spears & Sons, an old seed firm with warehouses at Lexington, Nicholasville, Danville, Bourgin and Lancaster, Ky., have dissolved. Woodward Spears gets the Spears interests in Canadian properties and others in Kentucky, while Casby

Spears retains the warehouses and buildings in Paris and the warehouse at Nicholasville and Lexington, Ky., as well as some of the Canadian farmlands.

A seed store is to be opened at Sarasota, Fla., by the Reils Seed Company of which H. F. Reils is proprietor. This is a branch store to the business at Savannah, Ga.

The Park Radio & Seed Company of Los Angeles, Calif., has changed its name to that of the Crystal Feed & Fuel Company. The firm will handle seeds, feed and radio supplies.

A new store in which seeds, flour, groceries, and feed will be handled and which will be known as the Golden Rule Store is to be opened at Pleasant Hill, Mo., by Lester Bell.

The seed business of J. W. Burbridge at Chickasha, Okla., has been purchased by Henry G. White. Mr. White has put in a complete line of seeds, plants, and poultry supplies.

Cade W. Day has purchased an interest in the Clarinda Seed & Feed Company at Clarinda, Iowa, and is now interested with Charles E. Dunn and Frank Sinn in operating it.

A storage and manufacturing plant costing \$100,000 is to be built at Sioux City, Iowa, by the Wertz Seed Company. The company sold its three-story building and site for \$65,000 to William T. Foley of Chicago.

The old Craver-Dickenson Seed Company's elevator at Binghampton, N. Y., has been purchased by Thomas A. Wilson. He bought it from R. S. Cooper who purchased it a month ago from the Craver-Dickenson Company of Chicago and Buffalo. Mr. Wilson bought the property for a manufacturing company to which he will turn it over.

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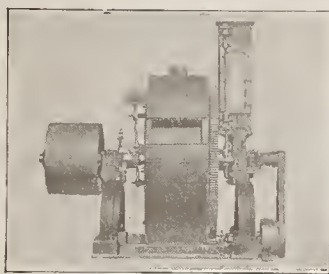
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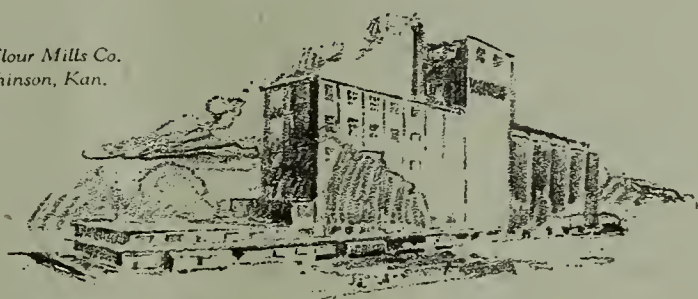
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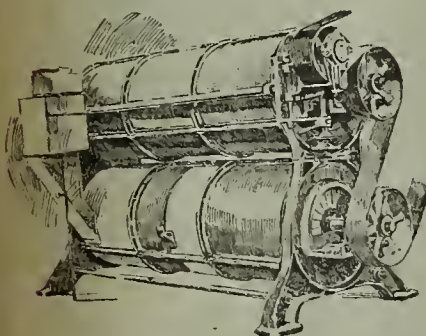
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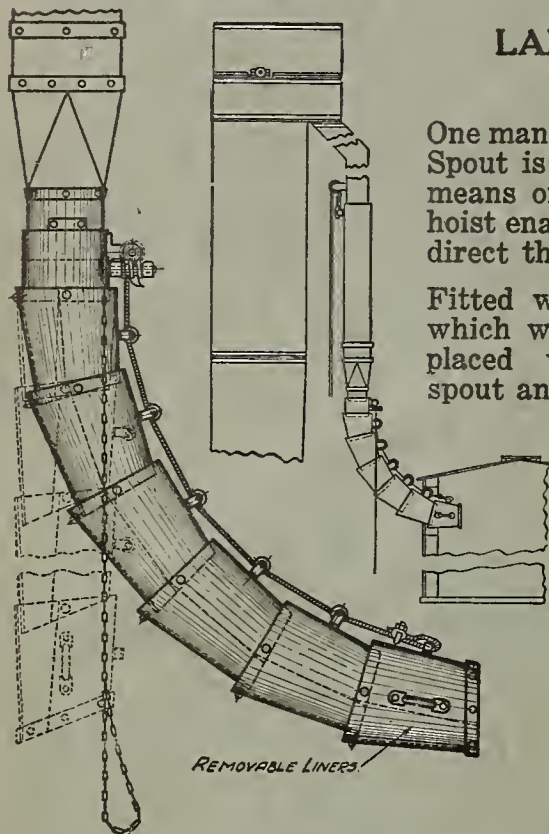
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